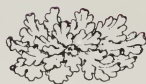




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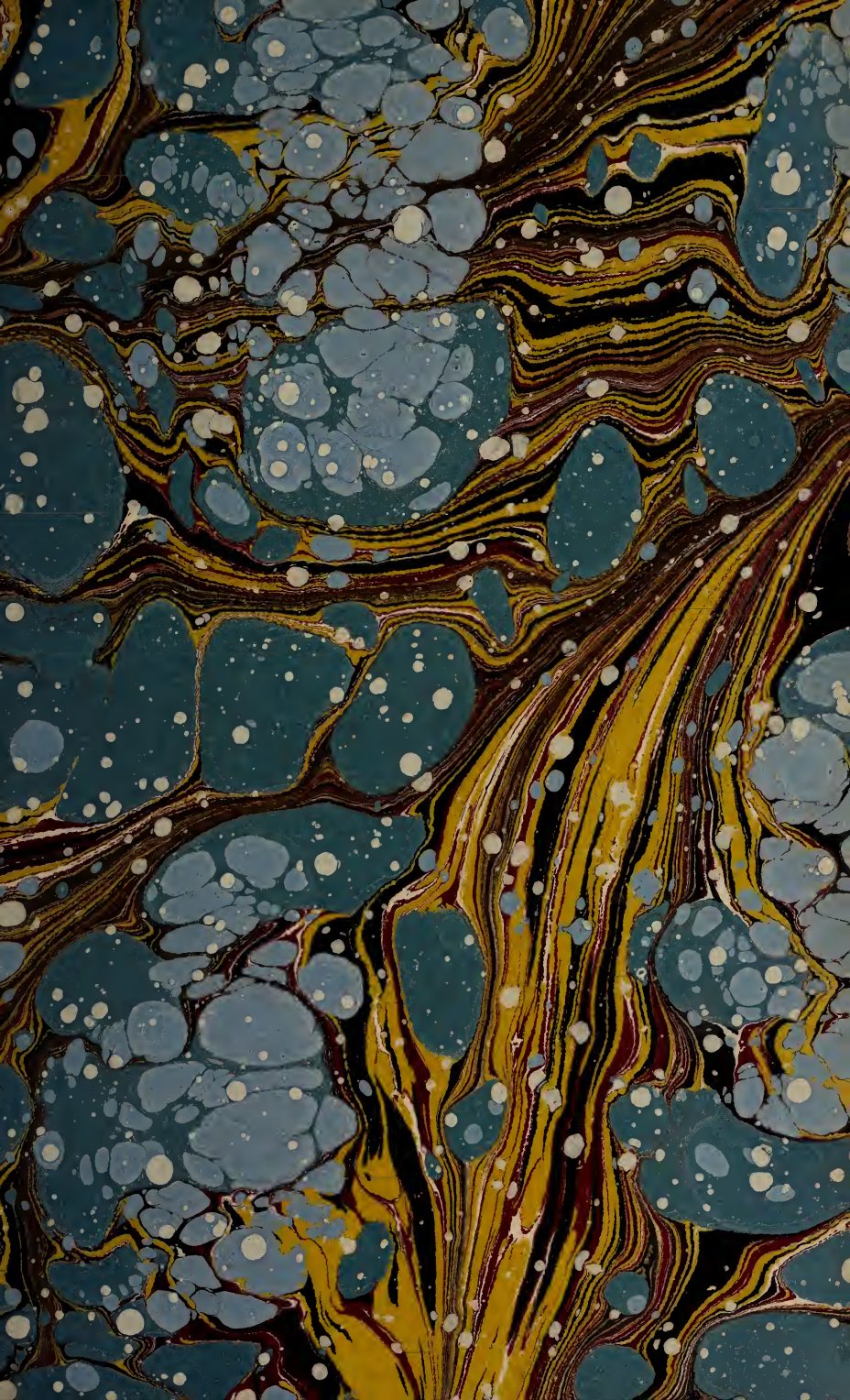


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Grevillea.

A QUARTERLY RECORD OF
CRYPTOGAMIC BOTANY
AND ITS LITERATURE.

EDITED BY M. C. COOKE, M.A., A.L.S.,

*Author of "Handbook of British Fungi," "Illustrations of British
Fungi," "Fungi, their uses," &c., "Rust, Smut, Mildew,
and Mould," "British Fresh Water Algæ,"
"British Desmids," &c., &c.*

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Grevillea,

A QUARTERLY RECORD OF CRYPTOGAMIC BOTANY
AND ITS LITERATURE.

NEW AUSTRALIAN FUNGI.

By M. C. COOKE.

(Continued from Vol. XVII., p. 81.)

Those to which an asterisk (*) is prefixed communicated by Baron F. von Mueller.

Agaricus (Amanita) murinus, Cke. & Mass.

Pileo e campanulato expanso, obtuse umbonato, nitido, murino, subnudo, margine striatulo ($1\frac{1}{2}$ -2 in. diam.). Stipite tenui, stricto, (3 unc. long, $\frac{1}{4}$ unc. crass.), albido, deorsum subfibrilloso, annulo pendulo, volva bulboso, laxo, lamellis liberis, subconfertis, albis, vel leniter roseo-tinctis. Spores $7 \times 5 \mu$.

On sandy soil. Brisbane. (Bailey, 651, 659.)

Agaricus (Amanitopsis) farinaceus, Cke. & Mass.

Albus, fungus totus farinaceus. Pileo carnosus, convexo, applanato ($2\frac{1}{2}$ -3 μ), albido, verrucis erectis prominulis, præcipue disco ornato, margine tenui, velo adnato fimbriato, stipite æquali, ($3\text{-}4 \times \frac{1}{2}$ unc.), exannulato, farcto, albo, volva bulbosa, margine libero crispato. Lamellis liberis, sublatis, confertis, albo lutescentibus. Sporis globosis, 10 μ diam.

On the ground. Brisbane. (Bailey, 690.)

Agaricus (Amanitopsis) pulchellus, Cke. & Mass.

Pileo convexo-expanso (1-2 unc. diam.) miniato, verrucis irregularibus, facile secedentibus oblecto, margine croceo, striatulo; stipite mox cavo, albo ($2\text{-}2\frac{1}{2}$ unc. long, $\frac{1}{4}$ unc. crass.), volva adnato, marginato, basi ovato-bulbosa, annulo obsoleto, lamellis liberis, ventricosis, confertis, albis, demum flavo-tingentibus. Sporis subglobosis, 7-8 μ .

On the ground. Victoria. (Mrs. Martin, 448, with figs.)

Very much resembling a diminutive form of *Ag. muscarius* without a ring.

Agaricus (Lepiota) fimetarius, C. & M.

Pileo carnosus, tenui, campanulato, obtuse umbonato ($\frac{1}{2}$ - $\frac{3}{4}$ unc. lato), pallido floccoso, squamulis adnatis, floccosis obscurioribus ornato. Stipite (1-2 unc. long) gracili, subæquali, deorsum

squamuloso, annulo fugaci, lamellis liberis, lanceolatis, confertis, albidis. Sporis ovato-apiculatis ($7 \times 5 \mu$).

On dung. Brisbane. (Bailey, 759.)

Similar in some respects to *Ag. subclypeolarius*, but with a distinctly squamulose stem.

Agaricus (*Lepiota*) ochrophyllus, Cke. & Mass.

Pileo carnoso, explanato, obtuso, pallide ochraceo, squamis innatis, concentricis obscurioribus variegato (4-6 unc. lat.), margine striatulo, stipite solido, erecto, glabro, demum striato-fibrilloso, deorsum bulboso (7 unc. long, 1 unc. crass.), concolori, annulo supero, pendulo, lamellis latis, postice attenuatis, liberis, subconfertis, ochraceis. Sporis ellipticis, $12 \times 8 \mu$.

On sandy land near Brisbane. (Bailey, 655.)

Colour of the gills "like new washleather." A very fine species, allied to *A. procerus*.

Agaricus (*Schulzeria*) revocans, Cke. & Mass.

Pileo subcarnoso, convexo, applanato ($2-2\frac{1}{2}$ unc. lat.), molli, pallido, squamis obscurioribus, præcipue disco, maculato, margine tenui, stipite subbulboso, erecto, exannulato, deorsum fusco, sursum albedo, glabro (3 unc. long, $\frac{1}{4}$ unc. crass.), demum cavo. Sporis $6 \times 4 \mu$.

In gardens. Brisbane. (Bailey, 684.)

Agaricus (*Armillaria*) fulgens, Cke. & Mass.

Pileo convexo-applanato ($2\frac{1}{2}-3$ unc. diam.), læte aureo, lævi, glabro, nitido, stipite erecto, gracili (4-5 unc. long, $\frac{1}{3}$ unc. crass.), fistuloso, lævi, pallide citrino, annulo patulo, lamellis adnatis, subconfertis, citrinis, sporis globoso-apiculatis, 8-9 μ diam.

On sandy soil. Brisbane. (Bailey, 696.)

Agaricus (*Tricholoma*) coarctatus, Cke. & Mass.

Cæspitosus, coarctatus, difformis. Pileo carnoso, convexo-plano, obtuso, viscido, alutaceo (1-3 unc. diam.), siccitate rimoso, margine lævi, stipite solido ($1\frac{1}{2}$ unc. long, $\frac{1}{3}-\frac{1}{2}$ unc. crass.), bulboso-radicato; lamellis subconfertis, latis, sinuato-adnexis, ventricosis, albis, rubrotinctis. Sporis ellipticis, $6 \times 3 \mu$.

On sandy soil. Sandringham, Victoria. (Tisdall, 1, 2.)

Allied to *Ag. albo-brunneus*, Fr.

Agaricus (*Clitocybe*) subsplendens, Cke. & Mass.

Agreeing in most points with *Agaricus (Clitocybe) splendens*, Fr., but cæspitose in habit, and the gills only slightly decurrent. Spores subglobose, 4-5 μ diam.

Amongst grass in garden. Brisbane. (Bailey, 722.)

Agaricus (*Laccaria*) canaliculata, Cke. & Mass.

Pileo submembranaceo (1 unc. lat.) demum umbilicato, velutino, radiato-canaliculato, læte fusco, margine tenui, crenulato; stipite æquali, longitudinaliter fibrilloso, tenaci, demum fistuloso, pallidiori, lamellis adnatis, latis, subdistantibus, carneis, albo pruinosis. Sporis globosis, verrucosis, 9-10 μ diam.

Under *Casuarina* trees. Brisbane. (Bailey, 710.)

Agaricus (Pleurotus) sulciceps, *Cke. & Mass.*

Pileo carnosio, tenui, e plano infundibuliformi, radiato-rugoso, subsulcato, glabro, fuligineo, disco obscuriori, subvelutino, margine patente, crispato, plerumque sublobato (1-2 unc. diam.). Lamellis tenuibus, distantibus, postice attenuatis, decurrentibus, intersticiis venosis, albis. Stipite tenui, cavo, compresso, curvulo, striato, albido (1-1½ unc. long, 2 lin. crass.). Sporis 5 × 3 μ.

On rotten wood. Brisbane. (*Bailey*, 734.)

Agaricus (Annularia) insignis, *Cke. & Mass.*

Amplus. Pileo carnosio, convexo, pallido, cute in squamis latis, adnatis, obscurioribus diffracto, margine incurvo (3-5 unc. diam.), carne crasso (½-¾ unc.), firmo, albo; stipite curto, obclavato, albido, crasso (2 unc. long, 1 unc. et ultra crass.), annulato, infra annulum squamis fuscis zonato, plerumque carneo-maculato. Lamellis liberis, postice rotundatis, subconfertis, albidis, dein salmonicoloribus. Sporis subglobosis, lævibus, 5 μ.

On the ground. River Yarra, Victoria. (*Tisdall*, 8.)

Agaricus (Hebeloma) gigaspora, *Cke. & Mass.*

Pileo carnosulo, convexo-applanato, umbonato (½ unc. diam.), nudo, glabro, udo, luteo-fusco; stipite premorso-radicato, fistuloso, æquali, vel basim incrassato (1½ unc. long), glabro, pallidiore, mycelio profuso. Lamellis latis, adnatis, subconfertis, olivaceis. Sporis majusculis, 18 × 8-9.

On the ground. Yarra Falls, Victoria. (*Tisdall*, 20.)

Allied to *A. petiginosus*, P.

Agaricus (Flammula) avellanus, *Cke. & Mass.*

(GYMNOTI.) Pileo carnosio, convexo, sicco, glabro, avellano-brunneo (2 unc. lat.). Stipite sursum attenuato, striato, pallidiori (2-2½ unc. long, ¼-⅓ unc. crass.); lamellis adnatis, latis, vix confertis, fulvo-ferrugineis. Sporis ellipticis, 10 × 6 μ.

On sandy ground. Brisbane. (*Bailey*, 653.)

The gills are rather paler than the pileus. Most closely to *A. Tammii*.

Agaricus (Flammula) prasinus, *Cke. & Mass.*

Pileo carnosio, convexo-expanso, sicco, sericeo, prasinato (1-2½ unc. diam.). Stipite æquali, stricto, farcto, glabro, lævi, citrino, (1½-2½ unc. long, ¼-⅓ unc. crass.); lamellis adnatis, ventricosis, luteis, fusciscentibus. Sporis 10-12 × 6 μ.

On the ground. Lilydale. (*Mrs. Martin*, 447, with fig.)

Agaricus (Psalliota) elatior, *Cke. & Mass.*

Pileus tenuiter carnosio, convexo-plano, umbonato (1½ unc. diam.) fusco, squamis obscurioribus adpressis tecto. Stipite erecto, cylindrico, elongato (3-5 unc. longa, 2 lin. crass.), sericeo, albido, basi incrassato, annulo supero, secedente; lamellis liberis, subconfertis, ventricosis, purpureo-fuscis. Sporis minutis (3 × 2 μ).

On the ground. Eltham, Victoria. (*Tisdall*, 23.)

Agaricus (Hypholoma) adustus, *C. & M.*

Pileo carnosio, convexo, obtuso, atro-fusco, squamis innatis obscurioribus variegato (2 unc. lat.), stipite æquali, pallidiori,

glabro ($1\frac{1}{2}$ -2 unc. long, $\frac{1}{4}$ unc. crass.) intus *flavidis*, faretis, lamellis adnatis, confertis, aridis, lividis, dein brunneo nigricantibus. Spor. $7-8 \times 4-5 \mu$.

On the ground. Brisbane. (*Bailey*, 672.)

Allied to *Ag. lacrymabundus*, whole plant becoming quite black in drying.

Agaricus (Panæolus) eburneus, *C. & M.*

Pileo carnosulo, convexo-campanulato, obtuso, lævi, eburneo, nitente (1-2 unc. lat.) stipite fragili, erecto, elongato, stricto, æquali, albo-nitente, demum cavo, exannulato (4-6 unc. long, 2 lin. crass.) lamellis ventricosis, confertis, adnatis, nigrescentibus, sporis ellipticis, utrinque attenuatis, $15 \times 9 \mu$.

Mostly on dung. Brisbane. (*Bailey*, 661.)

Resembling *Ag. separatus*, but white, and without a ring.

Agaricus (Panæolus) veluticeps, *Cke. & Mass.*

Pileo convexo-campanulato, obtuso ($\frac{1}{2}$ - $\frac{1}{3}$ unc. diam.) velutino, griseo, margine glabro, brunneo; stipite elongato (3-4 unc.) gracili, fistuloso, glabro, argente-griseo, lamellis adnatis, subconfertis, ventricosis, nigrescentibus, sporis elliptico-acuminatis, $14-15 \times 10 \mu$.

In garden amongst grass. Brisbane. (*Bailey*, 706.)

Remarkable for the silvery grey velvety pileus with a smooth brown margin.

Agaricus (Panæolus) ovatus, *Cke. & Mass.*

Pileo carnosulo, ovato, obtuso, opaco, demum diffracto-rimoso, albo; margine diu incurvo, ($1\frac{1}{2}$ -2 in. diam.) stipite erecto (4-6 unc. long), æquali, firmo, farcto, ad basim incrassato, sericeo, albo, lamellis griseo-nigrescentibus, adfixis, subconfertis, latiusculis. Spor. $14-15 \times 10 \mu$.

On manure, Yarra, &c. Victoria. (*Tisdall*, 6, 16.)

Hygrophorus candidus, *Cke. & Mass.*

Candidus. Pileo carnosulo, convexo, viscido, disco fusco-tincto, obtuso ($1\frac{1}{2}$ unc. diam.), margine tenuissimo. Stipite subflexuoso, deorsum attenuato, farcto ($2-2\frac{1}{2}$ unc. long), albo, hinc illic ochraceo-maculato. Lamellis subdistantibus, postice rotundatis, sporis subglobosis, $4 \times 3 \mu$.

On the ground. Sandringham, Victoria. (*Tisdall*, No. 14.)

Cantharellus (Mesopus) aureolus, *Cke. & Mass.*

Cæspitosus, aureolus. Pileo tenui, plano-depresso, subtiliter pubescente, margine inflexo ($\frac{1}{4}$ - $\frac{1}{2}$ unc. diam.) Stipite gracili (1 unc. long), æquali, substriatulo, lamellis numerosis, subconfertis, augustissimis, adnato-decurrentibus, sporis globosis, $5-6 \mu$ diam.

On the ground. Brisbane. (*Bailey*, 787.)

Whole plant of a dark gold colour.

Marasmius lanaripes, *Cke. & Mass.*

Pileo e carnosulo coriaceo, tenui, convexo-applanato, glabro, lævi, plumbeo vel sordide atro-cæruleo (circa 1 unc. diam.); stipite erecto, rigido, demum compresso, fistuloso (2-3 unc. long, 1-2 lin.

crass.) concolori vel olivaceo-tincto, densissime velutino; lamellis adnexus, distantibus, ventricosis, fulventibus, sporis ellipticis, albis, $7-8 \times 4 \mu$.

On rotten wood. Brisbane. (*Bailey*, 721.)

Whole plant turning blackish in drying.

Boletus (Hyporhodium) lacunosus, *Cke. & Mass.*

Pileo e pulvinato expanso, molli, subviscoso, pallide ochraceo, fusco, vel sub-brunneo (2-4 unc. diam.) stipite subæquali, vel sursum attenuato, profunde lacunoso, pallido (3-4 unc. long, 1-2 unc. crass.) tubulis adnatis, poris majusculis, angulatis, albidis dein incarnatis. Sporis amygdalæformibus, asperulis, $15 \times 10 \mu$.

On sandy ground. Brisbane. (*Bailey*, 649, 664, 670.)

Remarkable for the lacunose stem, but especially for the rough almond-shaped spores. Allied to *Boletus megalosporus*, Berk.

Strobilomyces pallescens, *Cke. & Mass.*

Pileo pulvinato, squamis crassis obtuse conicis imbricato, roseo-purpureo, demum pallescente, velo membranaceo lacerato, margine adherente. Stipite æquali, striato, pallido; tubulis liberis, utrinque abbreviatis, medio longissimis, poris majusculis, angulatis, lutescentibus. Carne fracto cærulescente, mox albidis. Sporis fuscis, longitudinaliter rugosis, $18-20 \times 8 \mu$.

At the base of trees. Brisbane. (*Bailey*, 744.)

Very different in colour, and in the character of the warts to *S. rufescens*.

Strobilomyces rufescens, *Cke. & Mass.*

Tota rufescens. Pileo hemisphærico (3-4 unc.) obtusissimo, verrucis conicis imbricatis dense obsito, apicibus acutis recurvis secedentibus, margine velo ampliato fimbriato; stipite subbulboso, elongato (6-7 unc. long, 1 unc. crass.), sursum pallido, deorsum rufescens, striato, solido, tubulis liberis, postice abbreviatis; poris angulatis, majusculis, fulvescentibus. Sporis fuscis, $18-20 \times 9 \mu$.

At the base of trees. Brisbane. (*Bailey*, 685.)

Strobilomyces velutipes, *Cke. & Mass.*

Nigrescens. Pileo pulvinato, obtuso, deplanato, squamis crassis, irregularibus obtusis imbricato, (2-3 unc. diam.), margine velo crenulato. Stipite æquali, velutino, sursum sulcato (2 unc. longa, $1\frac{1}{2}$ unc. crass.). Tubulis elongatis, utrinque abbreviatis, poris angulatis, majusculis. Sporis subglobosis, lævibus, læte fuscis, $8 \times 5-6 \mu$.

On the ground. Brisbane. (*Bailey*, 751.)

Resembling *S. strobiliaceus* and *S. nigricans*, but entirely differing in the spores.

Thelephora (Apus) stereoides, *Cke. & Mass.*

Coriacea. Pileis effuso-reflexis, villosis, ferrugineis, margine acuto crispulo, hymenio obscuriori, rugoso, acie pallidiore, rufescente. Sporis globosis, verrucosis, fuscis, 7-8 μ diam.

On bark. Oakleigh, Victoria. (*Mrs. Martin*, 450.)

A very characteristic species, with the habit of a *Stereum* or

Hymenochaete, and the structure and spores of *Thelephora* extending 3 or 4 inches, with the reflexed pilei about half an inch deep.

Lysurus australiensis, Cke. & Mass.

Receptaculo ($1-1\frac{1}{4}$ unc. longa) fusco, plerumque quinque-lobato, lobulis sursum attenuatis, primo conniventibus, demum subreflexis, medio longitudinaliter depressis, transverse rugosis. Stipite cylindrico (5 unc. longa, $\frac{3}{4}$ unc. diam.), cavo, celluloso, albido. Volva globosa, lacerato-lobata, alba. Pulpa sporifera rufo-fusca, nigrescens. Sporis $3 \times 1 \mu$.

On the ground. Brisbane River. (Bailey, No. 754, with fig.)

Bovista anomala, Cke. & Mass.

Subglobosa, antice posticeque depressa; cortice tenui, fragili, ad basim plus minus regulariter subcupulatum persistenti, albido; peridio crasso, coriaceo, subtiliter velutino, sordide ochraceo, superne ostiolo cylindrico, elevato-prominente, subsericeo, disco orbiculari depresso cincto; floccis hyalinis, nodulosis, $3-4 \mu$ cr. Sporis globosis, verruculosis, brevissime pedicellatis, olivaceis, $4-5 \mu$ diam.

On the ground. Victoria. (Mrs. Martin, 432.)

A remarkable species varying from 0.5-1.5 cm. diam. Externally resembling a *Geaster* in the prominent silky mouth surrounded by a depressed circular disc.

Asterina platystoma, Cke. & Mass.

Mycelio tenui, plus minusve orbiculato, dendritico, nigro. Peritheciis convexis, applanatis, arcte adnatis, atris, ostiolo fissurato, amplo, elongato. Ascis saccatis, octosporis. Sporidiis ellipticis, uniseptatis, medio constrictis, fuscis, loculo supero latiori, $17-18 \times 9 \mu$.

On living leaves of *Castanospermum*. Brisbane. (Bailey, 804.)

Ailographum melioloides, Cke. & Mass.

Epiphyllum. Maculis atris, orbicularibus vel confluentibus, filis radiantibus mycelicis compositis. Peritheciis adnatis, gregariis, elongatis, linearibus, flexuosis, atris, labris arcissime clausis, maculas sistentibus. Ascis oblongis. Sporidiis 8, ellipticis, medio constrictis, uniseptatis, hyalinis, $12-14 \times 7-8 \mu$.

On living or fading coriaceous leaves. Brisbane. (Bailey, 702.)

Ailographum eucalypti, Cke. & Mass.

Amphigenum. Peritheciis gregariis, maculas subcirculares sistentibus, linearibus vel confluentibus, rectis vel curvulis, labris in sicco arcte clausis, atris, minutis. Ascis clavatis, octosporis. Sporidiis biserialibus, subfusiformibus, uni-triseptatis, hyalinis, $9-10 \times 4 \mu$.

On dead leaves of *Eucalyptus*. Lilydale. (Mrs. Martin, No. 444.)

Rosellinia tremellicola, Cke. & Mass.

Peritheciis sparsis, globosis, superficialibus, atris, papillatis, glabris. Ascis cylindraceis, octosporis. Sporidiis uniseriatis, ellipticis, continuis, fuscis, $7-8 \times 4 \mu$.

On *Tremella fuciformis*. Brisbane. (Bailey, No. 771.)

Stictis emarginata, *Cke. & Mass.*

Minutissima, gregaria, epiphylla. Cupulis immersis, erumpentibus, poro pertuso, excipulo vero destituto. Ascis clavato-cylindricis, sessilibus. Sporidiis filiformibus, continuis, hyalinis, ascis aequantibus, $70.75 \times 2 \mu$.

On *Eucalyptus* leaves. Victoria. (*Mrs. Martin*, 439.)

Phoma Daviesiae, *Cke. & Mass.*

Hypophylla. Peritheciis minutissimis, tectis, atris, maculas nebuloses efformantibus, conidiis ovalibus, profusis, hyalinis, $5 \times 3 \mu$.

On dead leaves of *Daviesia latifolia*. Victoria. (*Mrs. Martin*, No. 438.)

Leptothyrium eucalyptarum, *C. & M.*

Peritheciis in macula exarida sparsis, scutiformi-applanatis, atris, angulosis, triangularis, vel subquadratis, medio stellato dehiscentibus. Sporulis, ovoideis, continuis, hyalinis $4 \times 3 \mu$.

On fallen leaves of *Eucalyptus*. Lilydale, Victoria. (*Mrs. Martin*, 439.)

Polystigmina, *Sacc. Syll. III.*, 622.

MARTINELLA, *sub. gen. nov.* Conidia subsphaeroidea, vel elliptica, continua, fusca.

Polystigmina (Martinella) eucalypti, *Cke. & Mass.*

Epiphylla. Stromate suborbiculari, carnosio, planiusculo, rufo-fusco; peritheciis minutissimis, immersis, saturioribus, ostiolo fissurato. Sporulis sphaeroideo-ovalis, continuis, laete fuscis, $6 \times 4 \mu$.

On leaves of *Eucalyptus*. Lilydale, Victoria. (*Mrs. Martin*, 443.)

Glaeosporium Hedycaryi, *Cke. & Mass.*

Epiphyllum. Maculis orbicularibus, nigricantibus, acervulis solitariis vel gregariis; conidiis oblongis, utrinque rotundatis, granulosis, hyalinis, $18 \times 4 \mu$.

On fading leaves of *Hedycarya Cunninghami*. Macedon, Victoria. (*Mrs. Martin*, No. 431.)

***Sterigmatocystis chlorina**, *Cke. & Mass.*

Effusa, maculiformia, atro-fusca; hyphis erectis, simplicibus, supra globoso-inflatis; vesiculæ processibus cuneatibus, radiantibus, hyalinis; basidia 3-4, ellipsoidea, olivacea, gerentibus. Conidiis globosis, lævibus, olivaceis, 5-6 μ diam.

On fruit of *Citrus*. E. New Guinea. (*Dr. McGregor*.)

Cercospora Daviesiae, *C. & Mass.*

Epiphylla. Maculis fuscis, irregularibus, angulatis; hyphis fasciculatis, abbreviatis; conidiis cylindræis, vel sursum attenuatis, obtusis, curvulis, arcuatis, 5 septatis, pallide fuscis, $60 \times 4 \mu$.

On fading leaves of *Daviesia latifolia*. Victoria. (*Mrs. Martin*, No. 438.)

Cercospora eucalypti, *Cke. & Mass.*

Maculis subcircularibus, vel confluentibus, pallidis, roseo mar

ginatis, hyphis abbreviatis. Conidiis cylindricis, curvulis, utrinque obtusis, vix septatis, pallidis, $30-35 \times 4 \mu$.

On fading leaves of *Eucalyptus*. Oakleigh. (Mrs. Martin, 436.)

***Stilbum formicarum**, Cke. & Mass.

Stipitibus elongatis, gracilis (5-8 mm. long), atris, flexuosis, deorsum leviter incrassatis, capitulo obovato, roseo, conidiis ellipticis ($10 \times 3 \mu$) hyalinis.

On dead ant (*Formica*). Cheltenham, Victoria. (French.)

BRITISH PYRENOAMYCETES.

BY G. MASSEE.

(Continued from Vol. XVII., p. 75.)

Fam. 13. ENDOXYLEÆ (IMMERSÆ, Fr.). Perithecia immersed, simple, with a short erumpent neck.

GEN. 1. **ENDOXyla**, Fekl. Stroma obsolete, sporidia allantoid, pale brown.

E. parallela, Fr., Sacc. Syll. 672.

On pine. Glasgow, Mar Forest, N.B.

E. operculata, A. & S.

Appin, N.B.

GEN. 2. **XYLOSPHÆRIA**, Cooke, Grev. vii., 86. Perithecia innate, immersed, growing on wood. Sporidia continuous, or septate, brown.

* **ANTHOSTOMA**. Sporidia continuous.

X. melanotes, B. & Br., Sacc. Syll. 1097; Hdbk. 2632. (= *Schmidtii*, Nke.).

On oak palings, Batheaston; on ash. King's Lynn, Ringstead, Leatherhead.

X. xylostei, Pers., Sacc. Syll. 1122; Hdbk. 2641.

On honeysuckle. King's Cliffe, N. Wootton.

** **PHÆOSPERMA**. Sporidia uniseptate.

X. anserina, Pers., Sacc. Syll. 2842; Hdbk. 2637.

On willow, etc. Shrewsbury, Lynn.

X. apiculata, Curr., Sacc. Syll. 2845; Hdbk. 2635.

On dead wood. Shere, Weybridge, Chiswick.

* * KALMUSIA. *Sporidia 3 or multiseptate.*

X. hemitapha, *B. & Br., Sacc. Syll.* 3375 ; *Hdbk.* 2634.

On oak. Bath, Shere.

X. hypotephra, *B. & Br., Sacc. Syll.* 3377 ; *Hdbk.* 2633.

On oak and beech. King's Cliffe ; Leigh Wood, Bristol ;
Elton, Norths ; Terrington St. Clements.

GEN. 3. **THYRIDIUM.** Stroma effused, woody.

Sporidia muriform.

T. lividum, *Pers., Sacc. Syll.* 3991.

On dead branches of ivy, etc. Appin, Forres, N.B.

Fam. 14. OBTECTÆ, *Fries.* Perithecia corticolous, innate, covered.

GEN. 1. **MASSARIA.** Sporidia involved in a hyaline mucus, oozing out and usually blackening the matrix.

* MASSARIELLA. *Sporidia bilocular, dingy.*

M. bufonia, *B. & Br., Sacc. Syll.* 2705 ; *Hdbk.* 2532.

On dead branches of oak. Weybridge, Easton, N. Wootton,
Eltham.

M. Curreyi, *Tul., Sacc. Syll.* 2709 ; *Hdbk.* 2534.

On lime. Blackheath, Eltham Park, Weybridge ; Morden
College Garden, Oxford.

M. scoriadea, *Fr., Sacc. Syll.* 1127 ; *Hdbk.* 2615.

On birch. Orton Wood, Capel Curig.

** EUMASSARIA. *Sporidia 2 to many septate, brown.*

M. fœdans, *Fr., Sacc. Syll.* 2852 ; *Hdbk.* 2529 (= *amblyospora*,
B. & Br.).

On elm. Jedburgh, Batheaston, Tooting, Eltham, Black-
heath, Trefriew.

M. pupula, *Fr., Sacc. Syll.* 2850 ; *Hdbk.* 2530.

On *Philadelphus*. Apethorpe.

M. gigaspora, *Fckl., Sacc. Syll.* 2860 ; *Hdbk.* 2531 (in part).
Blackheath, Darenth.

M. inquinans, *Tode, Sacc. Syll.* 2861 ; *Hdbk.* 2531 (in part).

On *Acer*. Sydenham, Hampstead, Somerset, Terrington.

M. argus, *B. & Br., Sacc. Syll.* 2868 ; *Hdbk.* 2528.

On birch. Spye Park, Wilts ; Surrey, Weybridge.

M. macrospora, *Desm., Sacc. Syll.* 2880 ; *Hdbk.* 2521.

Bath, Bowood, King's Lynn.

* * **MASSARINA.** *Sporidia 2 or many septate, hyaline.*

M. eburnea, Tul., *Sacc. Syll.* 3390; *Hdbk.* 2533.

On beech. Shere.

M. tilia, Ph. & Pl., *Sacc. Syll.* 3392.

On decorticated lime. Forres, N.B.

** **PLEOMASSARIA.** *Sporidia muriform.*

M. siparia, B. & Br., *Sacc. Syll.* 3708; *Hdbk.* 2527.

On birch. Spyre Park, Wilts; Blackheath, Hampstead, N. Wootton.

M. holochista, B. & Br., *Sacc. Syll.* 3709; *Hdbk.* 2535.

On Alder. Spyre Park, Wilts.

M. rhodostoma, A. & S., *Sacc. Syll.* 3711.

On *Rhamnusa frangula*. Lynn.

GEN. 2. **ENCHNOA.** Perithecia hairy, sporidia destitute of mucus, sausage-shaped, hyaline or olive.

E. infernalis, Kze. & Fr., *Sacc. Syll.* 372 (= *glis*, B. & Curr.).

On oak. Wrekin, Salop; Weybridge, Bishop's Wood, Sydenham.

E. lanata, Fr., *Sacc. Syll.* 372; *Hdbk.* 2652.

On birch. Appin, N.B.

GEN. 3. **CRYPTOSPHERIA**, Grev. Perithecia rather densely gregarious.

Sporidia sausage-shaped.

C. millepunctata, Grev., *Sacc. Syll.* 675; *Hdbk.* 2656 (= *pruinosa*, Fr.).

On ash. Common.

C. ocellata, Fr., *Sacc. Syll.* 680; *Hdbk.* 2658.

On branches of ash, willow, etc. Pentrich.

GEN. 4. **PHYSALOSPORA.** Perithecia rather solid, scattered, covered.

* *Sporidia 8, ovoid or oblong, hyaline.*

P. corni, Sacc., *Sacc. Syll.* 1659.

On *Cornus sanguinea*. Shrewsbury.

P. rosicola, Fckl., *Sacc. Syll.* 1662.

On *Rosa*. Kew.

** **DITOPELLA.** *Sporidia numerous.*

P. fusispora, Not., *Sacc. Syll.* 1735; *Hdbk.* 2663.

On alder. Shere, Irstead, Spyre Park, Wilts; Southgate Weybridge, North Wootton, Forden.

P. farcta, *B. & Br.*, *Sacc. Syll.* 1737 ; *Hdbk.* 2659.

On elm. Batheaston, Lynn.

P. Vizeana, *S. & Sp.*, *Sacc. Syll.* 1738.

On stems of *Buxus*. Milton, Forden.

GEN. 5. **ENDOPHLÆA**, *Fr.* Corticolous, scattered, covered.
Sporidia 1 or many septate.

* **DIDYMELLA**. *Sporidia elliptical, 1 septate, hyaline.*

E. applanata, *Nsl.*, *Sacc Syll.* 2130.

On *Rubus idæus*, raspberry, etc. Worcester, Forden, Shrewsbury.

E. corni, *Sow.*, *Sacc. Syll.* 2133 ; *Hdbk.* 2733.

On dogwood.

** **CHOROSTATE**. *Sporidia subfusiform, uniseptate, hyaline.*

E. salicella, *Fr.*, *Sacc. Syll.* 2413 ; *Hdbk.* 2657.

On willow. Kew, Langley, Terrington, Wimbledon, Hampstead.

E. sphingiocarpa, *Oud.*, *Sacc. Syll.* 2414.

On *Cornus alba*. Kew.

* * **METASPHÆRIA**. *Sporidia multiseptate, hyaline.*

E. persistens, *B. & Br.*, *Sacc. Syll.* 3430.

On rose. King's Cliffe.

E. sepincola, *Fr.*, *Sacc. Syll.* 3433 ; *Hdbk.* 2665.

On *Cornus sanguinea*. Hampstead, Shrewsbury.

E. Ashwelliana, *Curr.*, *Sacc. Syll.* 3446 ; *Hdbk.* 2669.

On fir branches. Weybridge.

GEN. 6. **ANTHOSTOMA**. *Sporidia continuous, brown.*

* **ANTHOSTOMELLA**. *Sporidia not appendiculate.*

A. clypeata, *Not.*, *Sac. Syll.* 1051 ; *Hdbk.* 2670.

On *Rubus* and *Epilobium*. Weybridge, Shrewsbury, Forres,
Loch Lomond, Appin, N.B.

** **ENTOSORDARIA**. *Sporidia appendiculate.*

A. appendiculosa, *B. & Br.*, *Sacc. Syll.* 1064 ; *Hdbk.* 2678.

On dead bramble. Batheaston, Weybridge, Twycross.

GEN. 7. **DIDYMOSPHÆRIA**. *Sporidia uniseptate, coloured.*

* *Perithecia membranaceous.*

D. trivialis, *B. & Br.*, *Sacc. Syll.* 2658 ; *Hdbk.* 2673.

On *Cornus*. Batheaston, Wilts.

D. celata, *Curr.*, *Sacc. Syll.* 2663 ; *Hdbk.* 2640.

On wych elm.

D. dochmia, *B. & Br.*, *Sacc. Syll.* 2664.

On *Ulmus*. Batheaston.

**** MICROTHELIA.** *Blackened round the ostiolum.*

D. epidermidis, *Fr.*, *Sacc. Syll.* 2677 ; *Hdbk.* 2676.

On privet, clematis, elder, bramble, gooseberry, *Araucaria*, etc. King's Cliffe, Neatishead, Weybridge, Greenhythe, Apethorpe.

D. diplospora, *Cke.*, *Sacc. Syll.* 2681 ; *Hdbk.* 2677.

On bramble. Highgate, Hasbro', Norfolk.

D. futilis, *B. & Br.*, *Sacc. Syll.* 2689 ; *Hdbk.* 2674.

On *Rosa*. King's Cliffe, Batheaston.

D. oblitescens, *B. & Br.*, *Sacc. Syll.* 2692 ; *Hdbk.* 2675.

On twigs of *Cornus*. Spye Park, Wilts.

D. anserina, *B. & Br.*, *Grevillea*, xvii., p. 91.

On bark. Shrewsbury.

GEN. 8. LEPTOSPHERIA. *Sporidia multiseptate, coloured.*

*** GENUINA.** *Perithecia not clypeate.*

L. abbreviata, *Cke.*, *Sacc. Syll.* 2945 ; *Hdbk.* 2683.

On dead bramble. Shere.

L. Tamaricis, *Grev.*, *Sacc. Syll.* 2946 ; *Hdbk.* 2681.

On *Tamarix gallica*. Dover, Eastbourne, Appin N.B.

L. Cookei, *Pir.*, *Sacc. Syll.* 2954.

On vine twigs. Terrington.

L. fuscella, *B. & Br.*, *Sacc. Syll.* 2959 ; *Hdbk.* 2679.

On rose twigs. Twycross, Barnet.

L. vagabunda, *Sacc.*, *Sacc. Syll.* 2963.

On *Salix Babylonica*. Kew.

**** CLYPEOSPHERIA.** *Perithecia clypeate.*

L. Notarisii, *Fckl.*, *Sacc. Syll.* 3189.

On *Rubus* and *Epilobium*. Highgate, Lynn.

L. mamillana, *Fr.*, *Sacc. Syll.* 3190.

On oak. Castle Rising, Leatherhead.

GEN. 9. DELACOUREA. *Sporidia muriform, coloured.*

*** PLEOSPORA.** *Asci octosporous.*

D. eustegia, *Cke.*, *Sacc. Syll.* 3759 ; *Hdbk.* 2682.

On willow twigs. Swanscombe, Hampstead.

D. samaræ, *Fckl.*, *Sacc. Syll.* 3785.

On fruit of ash. Forden, Lynn.

SYNOPSIS PYRENOMYCETUM.

(Continued from Vol. XVII., p. 93.)

Fam. 15. CAULICOLÆ, Fr. S. M. II., 503. Immerso-innatae, plerumque in caulibus herbarum emortuis obviæ.

GEN. 1. **PHOMATOSPORA**, Sacc. Perithecia tecta v. erumpentia. Sporidia continua, hyalina.

* GENUINA. *Aparaphysati*.

- | | |
|---------------------------------|----------------------------------|
| 4335. Berkeleyi, Sacc. ... 1650 | 4338. molluginis, Mont. 1655 |
| = <i>phomatospora</i> , B. | 4339. argyrostigma, Berk. 1654 |
| 4336. argentina, Sp. ... 1651 | 4340. daticæ, Hark. ... 6382 |
| 4337. ovalis, Pass. ... 1653 | 4341. endopteris, Ph. & Pl. 6383 |

** PHYSALOSPORA. *Paraphysati*.

- | | |
|----------------------------------|---------------------------------------|
| 4342. euphorbiæ, P. & P. 1666 | 4356. phlyctænoides, B. & C. ... 1705 |
| 4343. minutula, S. & S. 1667 | |
| 4344. astragali, Lasch. ... 1668 | 4357. Ludwigiae, Cke. ... 1720 |
| 4345. disrupta, B. & C. ... 1672 | 4358. œnanthes, Cr. ... 1726 |
| 4346. hypericina, B. & C. 1682 | 4359. obionis, Cr. ... 1728 |
| 4347. minutella, Peck. ... 1686 | 4360. geranii, C. & H. ... 6384 |
| 4348. œnothæræ, B. & C. 1687 | 4361. paraguaxa, Sp. ... 6391 |
| 4349. althææ, Kirch. ... 1691 | 4362. corallinarum, Cr. 1727 |
| 4350. eunotia, B. & C. ... 1693 | 4363. hepaticarum, Cr. 1729 |
| 4351. echii, Kirch. ... 1694 | 4364. lecanoræ, Stein. ... 6393 |
| 4352. eupatorii, Kirch. ... 1695 | 4365. collemæ, Stein. ... 6394 |
| 4353. palustris, Mont. ... 1697 | 4366. microthelia, Wallr. 6395 |
| 4354. trochiformis, Pr. 1699 | 4367. psoromoides, Borr. 6396 |
| 4355. atrosplendens, Pr. 1700 | |

GEN. 2. **APIOSPORA**. Perithecia tecta. Sporidia clavato-pyriformia, prope basim uniseptata.

- | | |
|-------------------------------|---------------------------------|
| 4368. Montagnei, Sacc. 2098 | 4371. Lloydii, Cr. ... 2101 |
| = <i>apiospora</i> , Mont. | 4372. inserta, B. & C. ... 2102 |
| 4369. striola, Pass. ... 2099 | 4373. punctum, S. & S. 2103 |
| 4370. parallela, K. ... 2100 | |

GEN. 3. **DIDYMELLA**. Sporidia didyma, hyalina.

* *In Dicotyledoneis*.

- | | |
|----------------------------------|-----------------------------------|
| 4374. vincetoxici, Not. ... 2153 | 4379. megarrhizæ, C. & H. 6478 |
| 4375. effusa, Nssl. ... 2154 | 4380. media, Sacc. ... 2157 |
| 4376. melonis, Pass. ... 6477 | 4381. planiuscula, B. & Br. 2158 |
| 4377. nemoralis, Sacc. ... 2155 | 4382. hæmatites, Rob. ... 2159 |
| 4378. exigua, Nssl. ... 2156 | 4383. hellebori, Chaill. ... 2160 |

4384. eupyrena, <i>Sacc.</i> ...	2161	4398. tosta, <i>B. & Br.</i> ...	2172
4385. hyporrhoea, <i>Sacc.</i>	2162	4399. commanipula, <i>B. &</i>	
4386. operosa, <i>Desm.</i> ...	2163	<i>B.</i> ...	2173
4387. trifolii, <i>Fckl.</i> ...	2164	4400. bryoniæ, <i>Fckl.</i> ...	2174
4388. onosmodina, <i>Pk. &</i>		4401. chamæjasmes, <i>Fckl.</i>	6484
<i>Cl.</i> ...	2165	4402. catariæ, <i>C. & E.</i> ...	2175
4389. superflua, <i>Fckl.</i> ...	2166	4403. incommiscibilis, <i>B.</i>	
4390. inconspicua, <i>Johans.</i>	6481	<i>& C.</i> ...	2176
4391. lathyrina, <i>B. & C.</i>	2167	4404. carduicola, <i>Cke.</i> ...	2177
4392. lupina, <i>C. & H.</i> ...	6482	4405. prominens, <i>Ell. &</i>	
4393. pusilla, <i>Nssl.</i> ...	2168	<i>Ev.</i> ...	7459
4394. intercepta, <i>K. & Cke.</i>	2169	4406. caulicola, <i>Moug.</i> ...	2178
4395. Fuckeliana, <i>Pass.</i>	2170	4407. aggregata, <i>Lasch.</i>	2179
4396. epilobii, <i>Fckl.</i> ...	2171	4408. subexserta, <i>C. & E.</i>	2180
4397. nivalis, <i>Fckl.</i> ...	6483		

** *In Monocotyledoneis.*

4409. arctica, <i>Fckl.</i> ...	6485	4416. phacidiomorpha,	
4410. proximella, <i>K.</i> ...	2181	<i>Ces.</i> ...	2187
4411. culmigena, <i>Sacc.</i> ...	2182	4417. refracta, <i>Cke.</i> ...	2188
4412. intercellularis, <i>B.</i>		4418. uberina, <i>Mont.</i> ...	2189
<i>& C.</i> ...	2183	4419. dioscoreæ, <i>B. & C.</i>	2190
4413. juncina, <i>B. & Rav.</i>	2184	4420. eumorpha, <i>B. & C.</i>	2191
4414. subgemina, <i>B. & C.</i>	2185	4421. combulliens, <i>B. & C.</i>	2192
4415. Nebraskæ, <i>B. & C.</i>	2186		

* * *In Acotyledoneis.*

4422. hyphenis, <i>Cke.</i> ...	2193	4425. sphinctrinodes, <i>Zw.</i>	6486
4423. lophospora, <i>S. & S.</i>	2194	4426. ulothii, <i>Korb.</i> ...	6487
4424. pteridicola, <i>B. & C.</i>	2195	4427. epipolytropa, <i>Mudd.</i>	6488

GEN. 4. **METASPHÆRIA.** Sporidia pluriseptata, hyalina.

A. *In Dicotyledoneis.*

* *Sporidia 2-4 septata.*

4428. bœhmeriæ, <i>Rabh.</i>	3401	4440. senecionis, <i>Fckl.</i> ...	3410
4429. thalictri, <i>Wint.</i> ...	3402	4441. metuloidea, <i>K. & C.</i>	3411
4430. ocellata, <i>Nsl.</i> ...	3403	4442. algeriensis, <i>S. & B.</i>	7022
4431. tritorulosa, <i>B. & B.</i>	3404	4443. lathyri, <i>Sacc.</i> ...	3412
4432. annæ, <i>Oud.</i> ...	7019	4444. depressula, <i>S. & R.</i>	7023
4433. rustica, <i>K.</i> ...	3405	4445. affinis, <i>Karst.</i> ...	3413
4434. trollii, <i>Karst.</i> ...	7020	4446. coniformis, <i>Fckl.</i> ...	3414
4435. rupicola, <i>Sacc.</i> ...	3406	4447. brachiata, <i>K. & C.</i>	3415
4436. xerophila, <i>S. & M.</i>	7021	4448. helianthem, <i>Awd.</i>	3416
4437. macrospora, <i>Fckl.</i>	3407	4449. scotophila, <i>D.R. & M.</i>	3417
4438. ?trichostoma, <i>Pass.</i>	3408	4450. galiorum, <i>R. &</i>	
4439. agminalis, <i>Lev.</i> ...	3409	<i>Desm.</i> ...	3418

4451. ferulina, <i>D. R. & M.</i>	3419	4456. boucera, <i>Cke. & Ell.</i>	3423
4452. ferulæ, <i>B. & A.</i> ...	7024	4457. sacculus, <i>P. & B.</i> ...	3424
4453. Thwaitesii, <i>B. & Br.</i>	3420	4458. kali, <i>Fab.</i> ...	6147
4454. complanata, <i>Tode.</i>	3421	4459. brunnea, <i>Sacc.</i> ...	3427
4455. rubella, <i>S. & M.</i> ...	3422	4460. primulicola, <i>Pat.</i>	7493

** *Sporidia* 5-10 septata.

4461. inulina, <i>D. R. & M.</i>	3425	4463. dissiliens, <i>Cke. &</i>	
4462. eburnea, <i>Nsl.</i> ...	3426	<i>Ell.</i> ...	3428
		4464. canadensis, <i>Not.</i> ...	3429

B. *In Monocotyledoneis.*

* *Sporidia* 2-3 septata.

4465. cocogena, <i>Cke.</i> ...	3469	4477. avenæ, <i>Awd.</i> ...	3481
4466. lacustris, <i>Fckl.</i> ...	3470	4478. cattanei, <i>S.</i> ...	3482
4467. neglecta, <i>Nsl.</i> ...	3471	4479. panicorum, <i>Cke.</i> ...	3483
4468. leersiae, <i>Pass.</i> ...	3472	4480. recutita, <i>Fr.</i> ...	3484
4469. discors, <i>S. & E.</i> ...	3473	4481. cumana, <i>S. & Sp.</i>	3486
4470. graminum, <i>Sacc.</i> ...	3474	4482. carectorum, <i>B. & C.</i>	3487
4471. coccodes, <i>K.</i> ...	3475	4483. junci, <i>Oud.</i> ...	3488
4472. culmifida, <i>K.</i> ...	3476	4484. palmetta, <i>Cke.</i> ...	3489
4473. anarithma, <i>B. & Br.</i>	3477	4485. iridicola, <i>Sacc.</i> ...	3490
4474. anarithmoides, <i>S.</i>		4486. iridis, <i>Desm.</i> ...	3491
<i>& S.</i> ...	3478	4487. ceratotheca, <i>Cke.</i>	6150
4475. poæ, <i>Sacc.</i> ...	3479	4488. marchaliana, <i>Sacc.</i>	7038
4476. brachypodii, <i>Pass.</i>	3480	4489. nigrotingens, <i>Mont.</i>	7492

** *Sporidia* plerumque 4 septata.

4490. craterium, <i>Mont.</i> ...	3492	4493. spatharum, <i>Ces.</i> ...	3495
4491. calamina, <i>D. R. & M.</i>	3493	4494. pinnarum, <i>Pass.</i> ...	3496
4492. Bellynckii, <i>West.</i>	3494		

* * *Sporidia* 5-pluriseptata.

4495. hyalospora, <i>Sacc.</i>	3497	4503. defodiens, <i>Ell.</i> ...	3505
4496. rachidis, <i>Pass.</i> ...	3498	4504. puccinioides, <i>Sp.</i>	3506
4497. sabuletorum, <i>B. &</i>		4505. scirpina, <i>Wint.</i> ...	3507
<i>Br.</i> ...	3499	4506. Debeauxii, <i>S. & R.</i>	3508
4498. fusariispora, <i>Mont.</i>	3500	4507. fur, <i>Ehr.</i> ...	3509
4499. oryzæ, <i>Catt.</i> ...	3501	4508. profuga, <i>Ehr.</i> ...	3510
4500. rimularum, <i>Cke.</i> ...	3502	4509. Lindsayana, <i>Curr.</i>	6151
4501. Roumeguerii, <i>Sacc.</i>	3503	4510. acorella, <i>Cke.</i> ...	7040
4502. grandispora, <i>Sacc.</i>	3504		

C. *In Acotyledoneis.*

4511. lycopodii, <i>B. & C.</i>	3511	4513. epipteridea, <i>C. &</i>	
4512. plegmariae, <i>Ces.</i> ...	3512	<i>H.</i> ...	3513

- | | |
|---|-------------------------|
| 4514. stereocaulorum, | 4518. lichenis-sordidi, |
| <i>Arn.</i> ... 3514 | <i>Mass.</i> ... 3518 |
| 4515. psoræ, <i>Anzi.</i> ... 3515 | 4519. leptogiophila, |
| 4516. lepidotæ, <i>Anzi.</i> ... 3516 | <i>Minks.</i> ... 7041 |
| 4517. cetraricola, <i>Nyl.</i> ... 3517 | |

D. CERIOSPORA. *Sporidia* 1-3 septata, mucronata.

- | | |
|--|--|
| 4520. fuscescens, <i>Nsl.</i> ... 3521 | 4521. bonaerensis, <i>Sp.</i> ... 3522 |
|--|--|

E. DILOPHIA. *Sporidia* fili-fusoidea, pluriseptata, utrinque setifera.

- | | |
|--|---------------------------------------|
| 4522. graminis, <i>Fckl.</i> ... 4104 | 4524. punctata, <i>Wint.</i> ... 7149 |
| 4523. sabalensis, <i>Cke.</i> ... 4105 | |

GEN. 5. **RAPHIDOSPORA.** *Sporidia* filiformia, hyalina.

* *In Dicotyledoneis.*

- | | |
|---|--|
| 4525. rubella, <i>Pers.</i> ... 4017 | 4547. solidaginis, <i>Schw.</i> 4034 |
| = <i>porphyrogona</i> , <i>Tode.</i> | 4548. stenosporus, <i>Karst.</i> 7132 |
| 4526. olivaceus, <i>Ellis</i> ... 7127 | 4549. Matthieui, <i>West.</i> ... 4035 |
| 4527. vulgaris, <i>Sacc.</i> ... 4018 | 4550. dictamni, <i>Fckl.</i> ... 4036 |
| 4528. urticæ, <i>Rabh.</i> ... 4019 | 4551. hyperici, <i>Rabh.</i> ... 4037 |
| 4529. ulnospora, <i>Cke.</i> ... 4020 | 4552. aconiti, <i>Bon.</i> ... 4038 |
| 4530. medusæ, <i>E. & E.</i> 7128 | 4553. nigrificans, <i>Cke.</i> ... 4039 |
| 4531. cesatiana, <i>Mont.</i> ... 4021 | 4554. hesperidis, <i>Sacc.</i> ... 4040 |
| = <i>echii</i> , <i>Rehm.</i> | 4555. brachystoma, <i>Sacc.</i> 4041 |
| 4532. collapsa, <i>C. & E.</i> 4022 | 4556. brachyascus, <i>Wint.</i> 4042 |
| 4533. rudis, <i>Reiss.</i> ... 4023 | 4557. camptospora, <i>Sacc.</i> 4043 |
| 4534. claviger, <i>Hark.</i> ... 7129 | 4558. calaminthæ, <i>Pass.</i> 4044 |
| 4535. montellica, <i>Sacc.</i> 4024 | 4559. euspora, <i>Sacc.</i> ... 4045 |
| 4536. humuli, <i>Karst.</i> ... 7130 | 4560. affinis, <i>Sacc.</i> ... 4046 |
| 4537. acuminata, <i>Sow.</i> ... 4025 | 4561. spina, <i>Speg.</i> ... 4047 |
| 4538. compressa, <i>Rehm.</i> 4026 | 4562. eryngii, <i>Oud.</i> ... 4048 |
| 4539. cirsii, <i>Karst.</i> ... 4027 | 4563. vitalbæ, <i>Sacc.</i> ... 4049 |
| 4540. incomptus, <i>Nsl.</i> ... 7131 | 4564. tenella, <i>Auers.</i> ... 4050 |
| 4541. bardanæ, <i>Fckl.</i> ... 4028 | 4565. characias, <i>Fab.</i> ... 4051 |
| 4542. anguillida, <i>Cke.</i> ... 4029 | 4566. persolina, <i>Not.</i> ... 4052 |
| 4543. georginæ, <i>Fckl.</i> ... 4030 | 4567. morthieri, <i>S. & B.</i> 7133 |
| 4544. eburnensis, <i>Sacc.</i> 4031 | 4568. adnata, <i>Bon.</i> ... 4053 |
| 4545. xanthii, <i>Lasch.</i> ... 4032 | 4569. fulgida, <i>C. & E.</i> ... 4054 |
| 4546. scolymi, <i>Mont.</i> ... 4033 | 4570. glomus, <i>B. & C.</i> ... 4055 |

** *In Monocotyledoneis.*

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| 4571. graminis, <i>Sacc.</i> ... 4064 | 4576. culmorum, <i>Cr.</i> ... 4069 |
| 4572. cariceti, <i>B. & Br.</i> ... 4065 | 4577. eucrypta, <i>B. & Br.</i> 4070 |
| 4573. coffeata, <i>Berk.</i> ... 4066 | 4578. leptosperma, <i>Speg.</i> 4071 |
| 4574. stictispora, <i>C. & E.</i> 4067 | 4579. helicospora, <i>B. &</i> |
| 4575. littoralis, <i>Cr.</i> ... 4068 | <i>Br.</i> ... 4072 |

4580. <i>maritima</i> , <i>Sacc.</i> ...	4073	4583. <i>oedema</i> , <i>Mont.</i> ...	4076
4581. <i>filispora</i> , <i>C. & E.</i>	4074	4584. <i>compar</i> , <i>Karst.</i> ...	7138
4582. <i>verminosa</i> , <i>Mont.</i>	4075	4585. <i>versisporus</i> , <i>E. & M.</i>	7139

* * * *In Acotyledoneis.*

4586. <i>peltigerarum</i> , <i>Arn.</i>	7140	4589. <i>Steinii</i> , <i>Korb.</i> ...	7141
4587. <i>peltigeræ</i> , <i>Mont.</i> ...	4077	4590. <i>Korberi</i> , <i>Stein.</i> ...	7142
4588. <i>thallicola</i> , <i>Not.</i> ...	4078	4591. <i>palustris</i> , <i>Schr.</i> ...	7143

* * * OPHIOCHÆTA. *Peritheciis setulosis.*

4592. <i>penicillus</i> , <i>Schw.</i>	4079	4595. <i>chætophora</i> , <i>Cr.</i> ...	4082
4593. <i>herpotricha</i> , <i>Fr.</i> ...	4080	4596. <i>incompta</i> , <i>Not.</i> ...	4083
4594. <i>pellita</i> , <i>Fckl.</i> ...	4081		

* * * * *Species imperfectæ cognitæ.*

4597. <i>comata</i> , <i>Not.</i> ...	4084	4599. <i>isiaca</i> , <i>Ces.</i> ...	4086
4598. <i>Hubneri</i> , <i>Rabh.</i> ...	4085	4600. <i>montagneana</i> , <i>Lacr.</i>	4087

NOTE.—Nos. 4208 to 4214 must be deleted; the species under these numbers having been entered before, and repeated in error.

THE REV. M. J. BERKELEY.

It is with profound regret that we have to announce the death of our esteemed friend and valued coadjutor, the Rev. Miles Joseph Berkeley, M.A., F.R.S. This event took place at Sibbertoft Vicarage, near Market Harborough, on the 30th July, in his 86th year. In all directions we may look for accounts of his long and active life, which his many friends will be anxious to record. His services to mycology in Great Britain cannot be overrated. The book which, perhaps of all others, will be his monument, is the one containing the Fungi in Sir William Hooker's "British Flora," and this was, for about a quarter of a century, the text book for English students. "Outlines of British Fungology," was a more recent work, but it was a publisher's book, and, for the most part, a barren catalogue, which had to be compressed that it should only occupy a given space. If the condition of knowledge of fungi in 1836 be taken into account, it will be seen that the volume of "British Flora" devoted to this subject was fully abreast of the time, and represented a vast amount of earnest and careful work, in face of many difficulties, brought to a successful issue. Read by the light of 1889, the book of 1836 will seem to be very imperfect, but when compared with all which preceded it, it must be acknowledged as a decided advance. Even now it may often be consulted with advantage. Actively working at fungi for more than fifty years, and in constant and familiar correspondence with the veteran Fries, it was to be expected that Berkeley should obtain and maintain the lead in all that concerned mycology in this country. With him the old race of mycologists is extinct. The elder and younger Fries, Mon-

tagne, Trog, Vittadini, Corda, &c., were amongst his correspondents, and to the last he was opposed to any innovations on what they taught, although controversy was his great aversion. He has often expressed himself in our hearing, as one who disliked controversy because it consumed so much time, which might be turned to better account, and which was calculated to raise rather than to assuage ill-feeling.

It was surprising, even to his friends, how cyclopædic was his knowledge, whether of the pedigree of a racehorse, or the pedigree of a garden flower, and what a large amount of work he could accomplish. In this he was assisted by an extraordinary memory, and, perhaps, trusted too much to memory in latter years, when it did not possess all its old vigour.

Undoubtedly the "Introduction to Cryptogamic Botany," published in 1857, was a valuable and learned work, but so heavy and compact in style that only very advanced students could make use of it with advantage. Because it was heavy and dull it never got beyond a *first* edition, and *not* because it failed in accuracy or method.

At first, and when a young man, he devoted himself to entomology, but ultimately his principal attention was devoted to the diseases of plants, including fungi, with occasional diversions in favour of British Algæ and mosses. It is in connection with fungi that his name will be best known to our readers, and as the "Prince of British Mycologists" his name will go down to posterity. Not until he was past eighty years of age did he wholly abandon his work with fungi, although his Herbarium was sent away in 1879. No absolute estimate could be made of the number of new species of fungi which were first described either by Berkeley alone, or in conjunction with others, during an active half century. An approximation may, perhaps, be made when the last volume of Saccardo's "Sylloge" is published. There are not less than five thousand types in the Berkeley Herbarium, now located in the Herbarium of the Royal Gardens, Kew, and there are other types in the general Herbarium which are not to be found in the Berkeley Herbarium. North American Fungi, contributed by Curtis, Sprague, Ravenal, and others, were for the most part described in the early volumes of this Journal. Ceylon Fungi, contributed by Dr. Thwaites, and in many cases accompanied by coloured drawings, were described in the "Linnean Journal," as were also the Cuban Fungi collected by Wright. The Indian collections, made by Sir J. D. Hooker and others, were published in Hooker's "Journal of Botany." Australian Fungi, contributed by Baron von Mueller, F. M. Bailey, and others, were described in the "Transactions" and the "Journal of the Linnean Society," whilst the Fungi of Tasmania and New Zealand were recorded in Hooker's "Floras" of those countries. Besides the above, and the "Challenger" collections, numerous smaller collections were determined and published from time to time partly in the three series of Hooker's "Journal of Botany" and partly in the "Annals and Magazine of Natural History," the Journal, and

"Transactions of the Linnean Society," and various other scientific journals.

It is unnecessary to go over the ground which has been occupied by the writers of memoirs already issued, or to anticipate those in process of preparation, by a record of the papers he contributed to journals, to learned societies, or to the pages of the "Gardener's Chronicle," in which his well-known initials, "M. J. B.," constantly appeared for about five-and-forty years.

With a kind and genial disposition, a warm heart, and a benevolent presence, he was beloved in his family, in his parish, in the various societies of which he was a member, and, indeed, by all with whom he came in contact, and his death will be regretted in a wide circle, though by no means sudden or unexpected at such a ripe old age.

M. C. C.

MEMORABILIA.

LENTINUS CYATHUS, B. & Br.—The species called *Lentinus scleroticola*, Murray, "Trans. Linn. Soc." II., Part ii., is identical with *Lentinus cyathus*, B. and Br., as determined by authentic specimens of both.

CEREBELLA PASPALI, C. & M.—The species called by Berkeley *Thecaphora inquinans*, from Ceylon, is this species.

CEREBELLA ANDROPOGONIS, Ces.—According to authentic specimen, *Polycystis macularis*, B. & Br., is the same.

TRICHIA FALLAX, Pers.—The specimens issued in Roumeguere's "Fungi Gallici," No. 42, under the name of *Licea circumscissa*, Pers., are the above *Trichia*, as far as our copy is concerned.

AGARICUS (ARMILLARIA) FOCALIS, Fr., var. *GOLIATHUS*.—This splendid *Armillaria* has been found by C. H. Spencer Perceval, Esq., near Morpeth. It seems doubtful whether it should be referred, as a variety, to *Agaricus focalis*, and not maintained as a separate species. In one specimen the pileus was six inches in diameter, and the stem $1\frac{1}{2}$ inches thick and five inches long.

VINE MILDEW.—The following extract from one of Berkeley's letters may be of some interest:—"You are wrong in supposing that Tucker was the first discoverer of the Vine Mildew. He got all his information from myself and Mr. Hoffman, and because he took great pains, and showed considerable intelligence in the matter, the species was named after him by way of encouragement. He was, however, foolish enough afterwards, in a Kentish paper, to throw doubt upon our opinions without any sufficient grounds for doing so. His claims were entirely ignored by the French Government, and £80 out of the money distributed by the French Government was given to a man who was long after Tucker in the application of sulphur, £20 being assigned to me, who was really the originator of the whole matter."

NEW BRITISH FUNGI.

BY M. C. COOKE.

(Continued from Vol. xvii., p. 80.)

Marasmius prasiosmus, Fries *Hym. Eur.* 468.

Strong scented. Pileus rather membranaceous, tough, campanulate-convex, then flattened, obtuse, rugulose; stem hollow, *pallid above, becoming smooth, thickened downwards*, pallid rufous or fuscous, *somewhat tomentose*; gills adnexed, a little crowded, at first white.

Amongst oak leaves. Scarborough.

Odour of garlic strong and persistent. Pileus becoming whitish, with the disc darker, scarcely an inch in diameter; stem 3 inches long, and a line thick, tough, with the curved dilated base adherent to dead leaves.

Marasmius torquescens, Quelet, *Fr. Hym. Eur.* 471.

The specimens in Herb. Berkeley from Glamis, referred to this species, are found to have brown spores, and to be really some small species of *Naucoria*. So that the Scotch locality is an error, supposing these specimens to have been the authority, which it is presumed that they were.

Arcyria dictyonema, Rost. *Mon.* 279.

Peridia ovate, stipitate; stems arising from a substratum; capillitium not very much divided, formed of cylindrical tubes, of varied dimensions, usually 3-5 μ thick, projections formed by rigid spinose prickles 1-7 μ high, these spines being joined in a reticulation at the base. Spores even, 9-10 μ diam.

On rotten wood. Smethwick (A. Camm).

Above is the diagnosis, as given by Rostafinski, reproduced by Saccardo (*Syll.* vii., p. 431), but our specimens differ in scarcely being stipitate, in the colour being olive, in the threads of the capillitium being as thick as the spores, in the projections not being spines, but merely the edges of the reticulations, and in the spores not being entirely even, but minutely warted.

Strumella strobilina, Cke. & Mass.

Pustules gregarious, erumpent, rather prominent, almost globose, black ($\frac{1}{4}$ mm. diam). Hyphæ simple, or furcate, filiform. Conidia fusiform, uniseptate, acute at both ends, sooty olive ($15-17 \times 2\frac{1}{2} \mu$).

On fir cones. Newcastle.

Glœosporium Pelargonii, Cke. & Mass.

Hypophyllum. Acervulis sparsis, bullatis, pallidis. Conidiis tereti-oblongis, utrinque rotundatis, hyalinis, $20 \times 4-5 \mu$.

On living leaves of ivy-leaf Pelargoniums. Kew.

REVISION OF THELEPHOREÆ.

The first part of Mr. Massee's revision of the *Thelephoreæ* includes four genera, viz.:—*Heterobasidium*, with one species; *Coniophora*, with 49 species; *Peniophora*, with 48 species; and *Asterostroma*, with five species. The following are those related to the British Flora:—

- Coniophora olivacea*, Cooke Grev. viii. 89.
- Coniophora pulverulenta*, Cooke Grev. viii. 89.
- Coniophora puteana*, Cooke Grev. viii. 88.
- Coniophora cinnamomea*, Mass. p. 130.
- Coniophora umbrina*, Mass. p. 131.
- Coniophora incrustans*, Mass. p. 132.
- Coniophora arida*, Karst. M. F. 319.
- Coniophora sulphurea*, Mass. p. 132.
- Coniophora subdealbata*, Mass. p. 135.
- Coniophora Berkeleyi*, Mass. p. 135.
- Coniophora Cookei*, Mass. p. 136.
- Coniophora ochracea*, Mass. p. 137.
- Coniophora membranacea*, Cooke Grev. viii. 89.
- Peniophora quercina*, Cooke Grev. viii. 20.
- Peniophora pezizoides*, Mass. p. 141.
- Peniophora gigantea*, Mass. p. 142.
- Peniophora limitata*, Cooke Grev. viii. 20.
- Peniophora rosea*, Mass. p. 146.
- Peniophora incarnata*, Mass. p. 147.
- Peniophora cinerea*, Cooke Grev. viii. 20.
- Peniophora pubera*, Mass. p. 149.
- Peniophora ochracea*, Mass. p. 150.
- Peniophora scotica*, Mass. p. 152.
- Peniophora velutina*, Cooke Grev. viii. 21.
- Peniophora rimosa*, Cooke Grev. ix. 94.
- Peniophora terrestris*, Mass. p. 153.
- Peniophora hydroides*, Cke. & Mass. p. 154.

Entirley new species, now first described, are:—

Coniophora incrustans, Mass. Effused, thin, indeterminate, hymenium subtomentose, pallid; spores very pale ochre, $15-17 \times 8-10 \mu$.

Running over leaves and twigs. Apethorpe.

Coniophora Berkeleyi, Mass. Effused, thick, determinate; hymenium brown, becoming purplish, cracked, interstices silky; spores ellipsoid, apiculate at the base, tawny ($12 \times 8 \mu$).

On decorticated wood. (*Herb. Berk.* 3982a.)

Coniophora Cookei, Mass. Effused, fibrillose, membranaceous, circumference byssoid, pallid; hymenium olive-ferruginous, pulverulent; spores elliptic, ochre ($10 \times 6 \mu$).

On rotting wood.

Coniophora ochracea, *Mass.* Very broadly effused, somewhat membranaceous, indeterminate; hymenium pulverulent, ochraceous, spores yellowish, subglobose ($8 \times 6-7 \mu$).

Inside elm bark. Kew.

Peniophora pezizoides, *Mass.* Rather coriaceous, cup-shaped then expanded, fixed at the centre, externally pallid and villose; hymenium ochraceous, velvety, continuous; cystidia fusoid, rounded at the apex, acute at the base ($50-60 \times 20 \mu$). Spores globose, $4-5 \mu$.

On branches of horse-chestnut. Kew.

Peniophora scotica, *Mass.* Broadly effused, margin fibrillose radiate; hymenium cinnamon, velvety; cystidia sub-cylindrical ($80-120 \times 15-20 \mu$). Spores ellipsoid, $8-10 \times 6-7 \mu$.

Inside bark. Scotland (*Herb. Berk.* 3995a.)

Peniophora hydroides, *Cke & Mass.* Broadly effused, thin, rather innate, indeterminate; hymenium cinereous; cystidia cylindrical-fusoid ($70-120 \times 12-14 \mu$). Spores globose, $4-5 \mu$.

On bark. Carlisle.

FUNGUS FORAYS, 1889.

CRYPTOGAMIC SOCIETY OF SCOTLAND.—The fifteenth annual conference will be held at Crieff, Perthshire, on Tuesday, the 17th September, at 10 a.m., and following days. Members will learn the place of meeting at any of the Hotels on their arrival.

WOOLHOPE FIELD CLUB.—The annual meeting of this Club for Fungus Forays will take place as usual during the first week in October. The neighbourhood of Ludlow has been selected for the excursions of the first two days. The short excursion for the Thursday will probably be made to Dinmore, returning in time for the annual dinner.

HAMPSHIRE FIELD CLUB.—Forays for two days are being organized to take place in the New Forest, but the time has not yet been definitely fixed.

ESSEX FIELD CLUB.—The arrangements for the annual Forays in Epping Forest are not completed, or the date fixed, on account of the uncertainty of the weather. Probably some time in October will be selected.

HACKNEY NATURAL HISTORY SOCIETY.—Proposals are being entertained for a day excursion in Epping Forest on a Saturday near the middle of September, but the precise date has not at present been decided upon, probably the 14th.

Other societies, which in previous years have organized small local Forays, at present have made no sign, although it seems probable that comparatively early dates would this year have a better prospect of success than later ones.

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Grevillea,

A QUARTERLY RECORD OF CRYPTOGAMIC BOTANY
AND ITS LITERATURE.

NEW AUSTRALIAN FUNGI.

BY M. C. COOKE.

(Continued from p. 8.)

***Agaricus (Pholiota) recedens, Cke. & Mass.**

Pileo carnosulo, convexo-expanso, subumbonato, glabro, sicco, aureo-fulvo, disco obscuriori (circa 1 unc. diam.), margine tenui, demum striatulo; stipite elongato, cylindrico, æquali (3-4 unc. long, 2 lin. crass.), pileo concolori, vel deorsum obscuriori, annulo amplo, patulo, distante medio; lamellis adnatis, subdistantibus, ventricosus, tenuibus, cinnamomeis. Sporis acuminato-ellipticis, læte fuscis, $9 \times 5 \mu$.

On the ground. Mordiallac, Victoria. (C. French.)

Allied closely to *Ag. togularis*, Bull.

Craterellus multiplex, Cke. & Mass.

Stem slender, erect, rugose (2in. long, 2 lin. thick). Pilei reniform or obovate, attached at the base to the stem, in a series of five or six, superimposed ($\frac{1}{2}$ - $\frac{3}{4}$ in. broad), sub-membranaceous, depressed behind, smooth, ochraceous, margin a little incurved, thin, hymenium flesh colour, longitudinally rugose. Spores $3\frac{1}{2} \mu$ diam. globose, very numerous, hyaline.

On the ground. Derwent River, Tasmania.

Seismosarca, Cooke (Genus nova).

Tremelloid, very soft and quaking, subglobose, lobate, or gyrose, sessile, covered everywhere by the hymenium. Basidia clavate. Spores continuous, coloured.

Seismosarca hydrophora, Cooke.

Inflated, gelatinous, lobate (2-3in. broad), dingy pale, fuliginous, very soft and watery, covered with scattered coloured hairs, which are usually furcate at the base ($50-60 \times 8 \mu$), pointed at the apex. Basidia clavate, spores elliptic, continuous, bright brown, $7 \times 4 \mu$.

On wood. Clarence River, Australia. (Willcox.)

Texture and appearance of *Tremella*, but with different basidia, and coloured spores.

Scleroderma aurea, *Massee*.

Peridium globose, thick, smooth, or minutely verruculose, yellowish-olive, with the flesh bright yellow, tapering below into a very short, stem-like base, running into a dense mass of branched, cord-like, bright yellow mycelium. Capillitium yellowish olive, dense, elastic, spores umber in the mass, with an olive tinge, globose, smooth, $5\ \mu$ diam.

On the ground. New Guinea.

Scleroderma australe, *Massee*.

Subglobose, sessile, subpubescent below. Peridium thick, almost even, externally minutely furfuraceous or felty, dirty-ochre, with a rooting base, which is short, abrupt, and fibrous. Internally with very indistinct areolae, mass of spores (without definite capillitium), purple-brown; spores globose, sparsely and minutely verruculose, $6-7\ \mu$.

On soil. Endeavour River, Queensland. (*Persiey*.)

***Spinellus gigasporus**, *Cke. & Mass.*

Hyphis sporangiferis simplicibus, decumbentibus, olivaceo nitentibus, continuis ($40-45\ \mu$ crass.). Sporangii subglobois, polysporis ($220-250\ \mu$ diam.), columella cylindrica, apice rotundata ($140-150 \times 90-100\ \mu$). Sporis elongato-ellipsoideis, olivaceis ($50-60 \times 13-15\ \mu$). Hyphis zygosporiferis flexuosis tenuioribus, obscurioribus, septatis, zygosporio compresso-globois, ruguloso, atrofusco ($70-80 \times 55-60\ \mu$). Rami zygosporia arcuati, laevi, nec spinulosi.

On decaying Agarics. Mordiallac, Victoria. (*C. French*.)

NEW BRITISH FUNGI.

(Continued from p. 20.)

Agaricus (Collybia) floccipes, *Fr. Hym. Eur.* 116.

Pileus rather fleshy, campanulate, then convex, umbonate, even, silky, becoming pale; stem fistulose, straight, rooting, pallid, rough with floccose punctiform black squamules; gills adnexed, ventricose, rather distant, thick, white.—*Cooke Illus. Suppl.*

In a stump. Leigh Woods. (*C. Bucknall*.)

With the habit of *Mycena*.

Paxillus (Lepista) Alexandri, *Gillet Hym. Fr.*

Pileus fleshy, compact, plane, then depressed, dry, unpolished, fawn colour, margin closely involute, becoming flattened and faintly striate; stem stout; gills rather decurrent, crowded, colour of box wood.—*Fr. Hym. Eur.* 402. *Cooke Illus. Suppl.*

On the ground. Theydon Bois.

Pileus 2-3 inches broad. Stem short and thick. Flesh white, turning yellow. Spores whitish. Resembling in appearance small discoloured *L. villereus*, with dark gills. Spores $7-8 \times 4\ \mu$.

Marasmius (Mycena) actinophorus, *B. & Br., Ceylon Fungi No. 385.*

Pileus 2 to 3 lines across, plane, smooth, even, pale ochre, disc purple, with radiating lines of the same colour, very thin. Stem 1 inch long, straight, equal, thread-like, polished, brownish red, curved at the base. Gills few, rather broad, subdecurrent, with shorter ones between, distant, not anastomosing nor connected by veins, pallid. Spores sphaerical.—*Cooke Illus. t. 1136 B.*

On naked soil. Kew Gardens.

Rhinotrichum aureum, *Cke. & Mass.*

Broadly effused, overrunning the entire matrix, bright golden orange. Sterile threads, creeping, branched, thin, septate. Fertile threads, erect, simple or dichotomous, septate (12-15 μ diam.), ultimate joint papillate with obtuse warts. Conidia ovate-elliptical, clustered at the apices in subglobose heads. 18-20 \times 10-12 μ .

On decayed *Paxillus*. Epping Forest.

Trichia purpurascens, *Nyl.*

Sporangia stipitate, ovate or spherico-ovate, solitary or gregarious, purplish-red, opaque; stem longitudinally wrinkled, erect or cernuous, rather firm and thickish, expanding at the base into a small hypothallus, coloured like the sporangium, which it equals or exceeds in length; mass of elaters and spores bright ochraceous; elaters rather short, fusiform, attenuated at each end into a very long, tapering, smooth, straight, or flexuous apiculus, spirals rather prominent and distant, about 5 μ thick at the centre, simple or branched; spores globose, verruculose, yellow, 9-11 μ diameter.—*Nyl., in Sällsk. pro Faun. et Flor. Fenn., notis. Ny., Ser. H, I., (p. 126; Mass. Rev. Trich., p. 332; Sacc. Syll. 1508.)*

On moss. Carlisle. (*Dr. Carlyle.*)

Very nearly approaching some forms of *Trichia fragilis*, from which it differs more especially in the distant, prominent, sharp edged and not flattened spiral bands on the elaters. The inner surface of the sporangial wall is studded with purple organic lumps; these, however, are met with in some undoubted forms of *T. fragilis*.

Hemiarcyria Bucknallii, *Mass.*

Sporangia sessile on a broad or narrow base, seated on a very thin hypothallus, circular, reniform, or subangular from mutual pressure, wall very thin, gilvo-ochraceous, soon disappearing; mass of spores orange; capillitium well developed, threads combined to form a wide meshed network with many free ends, 4-5 μ thick, walls with annular ridges mostly crowded, but here and there scattered, and sometimes passing into a spiral, the ridges with numerous thin, straight spines 3-4 μ long, the free tips irregularly swollen and bristling with spines, as are also certain interstitial swollen portions; spores globose, pale yellow, minutely warted, 7-9 μ diameter.

On wood. Bristol. (*C. Bucknall.*)

Generally crowded, about 5 mm. diameter, but extending to 1.5 mm. when isolated and elongated. Most closely allied to *H. Wigandi*, Rost., but at once distinguished by the larger size of the sporangia, the markings on the elaters being in the form of rings and not spirals, and in being furnished with numerous spines.

SYNOPSIS PYRENOMYCETUM.

(Continued from p. 17.)

GEN. 6. **ANTHOSTOMELLA.** Sporidia continua, fuliginea.

* EUANTHOSTOMELLA. *Sporidia muticis.*

† In *Dicotyledoneis.*

4601. nigrotecta, <i>B.</i> &	4604. chionostoma, <i>D. R.</i>
<i>Rav.</i> 1054	& <i>M.</i> 1061
4602. intybi, <i>D. R.</i> & <i>M.</i> 1059	4605. Africana, <i>K.</i> & <i>C.</i>
4603. baptisiæ, <i>Cke.</i> ... 1061	1081, 6324

†† In *Monocotyledoneis.*

4606. punctulata, <i>Rob.</i> ... 1028	4621. eliminata, <i>B.</i> & <i>C.</i> 1040
4607. minima, <i>Sacc.</i> ... 1029	4622. smilacis, <i>Fab.</i> ... 1041
4608. lugubris, <i>Desm.</i> ... 1030	4623. sepelibilis, <i>B.</i> & <i>C.</i> 1042
4609. nitidissima, <i>D. R.</i>	4624. smilacinina, <i>Pk.</i> ... 1043
& <i>M.</i> 1031	4625. sphæroidea, <i>Speg.</i> 1044
4610. nigroannulata, <i>B.</i> &	4626. paraguayensis,
<i>C.</i> 1032	<i>Speg.</i> 6319
4611. yuccæ, <i>Thum.</i> ... 1033	4627. tomicum, <i>Lev.</i> ... 1045
4612. phæosticta, <i>Berk.</i> 1034	4628. tumulosa, <i>Rob.</i> ... 1046
4613. palmicola, <i>Awd.</i> 6318	4629. consanguinea, <i>Ces.</i> 1047
4614. contaminans, <i>D. R.</i>	4630. Trabutianna, <i>S.</i> &
& <i>M.</i> 1035	<i>R.</i> 1048
4615. pisana, <i>Pass.</i> ... 1036	4631. parmula, <i>Lev.</i> ... 1049
4616. Møleriana, <i>Winter</i> 7435	4632. clivulosa, <i>Mont.</i> ... 1050
4617. platensis, <i>Speg.</i> ... 1037	4633. rusci, <i>Fab.</i> ... 5925
4618. Puiggarii, <i>Speg.</i> ... 1038	4634. leucobasis, <i>E.</i> & <i>M.</i> 5926
4619. tenacis, <i>Cooke</i> ... 1039	4635. sabalensioides, <i>E.</i>
4620. phormicola, <i>Cooke</i> 6323	& <i>M.</i> 5932

** ENTOSORDARIA. *Sporidia appendiculata.*

4636. confusa, <i>Sacc.</i> ... 1065	4640. scotina, <i>D. R.</i> & <i>M.</i> 1071
= <i>appendiculosa</i> , <i>B.</i> & <i>C.</i>	4641. unguiculata, <i>Mont.</i> 1072
4637. rostrispora, <i>Ger.</i> ... 1068	4642. italica, <i>S.</i> & <i>S.</i> ... 1073
4638. achira, <i>Speg.</i> ... 1069	4643. bambusæ, <i>Lev.</i> ... 1074
4639. mirabilis, <i>Speg.</i> ... 1070	4644. tomicoides, <i>Sacc.</i> 1076

* * DESCISCENTES. *Ostiola nulla maculata.*

4645. sulcigena, <i>Mont.</i>	1082	4650. caulicola, <i>Ces.</i>	... 1091
4646. stegophora, <i>M.</i>	... 1083	4651. duplex, <i>Cr.</i>	... 1092
4647. oblectans, <i>Ces.</i>	... 1084	4652. visci, <i>Kalch.</i>	... 1094
4648. acanthina, <i>M.</i>	... 1089	4653. Steinheilii, <i>M.</i>	... 1095
4649. pandani, <i>Rab.</i>	... 1090		

GEN. 7. **DIDYMOSPHERELLA.** Sporidia didyma, fuliginea.* EUDIDYMA. *Epidermide non nigrificata.*

4654. conoidea, <i>Nsl.</i>	... 2644	4671. trachodes, <i>Mont.</i>	2672
4655. Schroteri, <i>Nsl.</i>	... 2645	4672. longipes, <i>Trab.</i>	... 7468
4656. Winteri, <i>Nsl.</i>	... 2646	4673. yuccogena, <i>Cke.</i>	... 2673
4657. parnassiae, <i>Peck.</i>	... 2647	4674. lusitanica, <i>Nsl.</i>	... 6580
4658. zerbina, <i>Not.</i>	... 2648	4675. palmacea, <i>C. & H.</i>	1085
4659. diplodioides, <i>Cr.</i>	... 2649	4676. arundinicola, <i>Bizz.</i>	6581
4660. pardalnia, <i>E. & E.</i>	7467	4677. rhytidosperma,	
4661. maritima, <i>Cr.</i>	... 2650	<i>Speg.</i>	... 6582
4662. Vizeana, <i>Cke.</i>	... 2651	4678. spatharum, <i>Wint.</i>	6583
4663. adelphica, <i>Cke.</i>	... 2652	4679. typhæ, <i>Peck.</i>	... 6584
4664. sellæ, <i>Bagn.</i>	... 2656	4680. palustris, <i>B. & Br.</i>	2674
4665. circinans, <i>Hark.</i>	... 6585	4681. peltigeræ, <i>Fckl.</i>	... 2675
4666. empetri, <i>Fr.</i>	... 2657	4682. infestans, <i>Speg.</i>	... 2676
4667. anaxæa, <i>Sacc.</i>	... 2669	4683. bryonthæ, <i>Arn.</i>	... 6588
4668. polysticta, <i>B. & C.</i>	2670	4684. microstictica,	
4669. serrulata, <i>E. & M.</i>	6575	<i>Leight.</i>	... 6589
4670. smaragdina, <i>Ces.</i>	2671	4685. sporastatiæ, <i>Anzi.</i>	6591

** MICROTHELIA. *Epidermide nigrificata.*

4686. brunneola, <i>Nsl.</i>	... 2678	4690. appendiculosa,	
4687. meretrix, <i>M.</i>	... 2679	<i>Speg.</i>	... 2686
4688. galiorum, <i>Fckl.</i>	... 2683	4691. nubecula, <i>Pass.</i>	... 2696
4689. tenebrosa, <i>B. & Br.</i>	... 2685	4692. donacina, <i>Nsl.</i>	... 2697
		4693. minuta, <i>Nsl.</i>	... 2698
		4694. Sauteri, <i>Korb.</i>	... 6590

GEN. 8. **HEPTAMERIA.** Sporidia pleuriseptata.I. LEPTOSPHERIA. *Sporidia articulis homogeneis.*

A. In Dicotyledoneis.

† *Sporidia 2-3 septata.** *Perithecia glabra.*

4695. doliolum, <i>Pers.</i>	... 2895	4700. dumetorum, <i>Nsl.</i>	2899
4696. conoidea, <i>Not.</i>	... 2896	4701. demissa, <i>Nsl.</i>	... 6648
4697. suffulta, <i>Nees.</i>	... 2897	4702. obesula, <i>Sacc.</i>	... 2900
4698. acanthi, <i>Pat.</i>	... 7477	4703. bocconia, <i>C. & E.</i>	2901
4699. subconica, <i>C. & P.</i>	2898	4704. argentina, <i>Speg.</i>	2902

4705. leptospora, <i>Not.</i>	2903	4732. inculta, <i>Sacc.</i>	... 2925
4706. clivensis, <i>B. & Br.</i>	2904	4733. aparines, <i>Fckl.</i>	... 2926
4707. libanotis, <i>Fckl.</i>	2905	4734. galiicola, <i>Sacc.</i>	... 2927
4708. Longchampsii,		4735. galiorum, <i>Sacc.</i>	... 2928
<i>West.</i> ...	6650	4736. muralis, <i>Sacc.</i>	... 2929
4709. consessa, <i>C. & E.</i>	2906	4737. promontorii, <i>Sacc.</i>	2930
4710. ophioboloides, <i>S.</i>	6651	4738. Sarraziniana, <i>Sacc.</i>	6656
4711. rudbeckiæ, <i>K.</i>	... 2907	4739. pyrenopezizoides,	
4712. rothomagensis,		<i>S. & S.</i>	... 2931
<i>Sacc.</i> ...	2908	4740. parietariæ, <i>Sacc.</i>	... 2932
4713. sibirica, <i>Thum.</i>	... 2909	4741. salicaria, <i>Pass.</i>	... 2933
4714. viridella, <i>Peck.</i>	... 2910	4742. circinans, <i>Fckl.</i>	... 3183
4715. dioica, <i>Mong.</i>	... 2911	4743. agminalis, <i>S. & M.</i>	2934
4716. distributa, <i>C. & E.</i>	2912	4744. Weberi, <i>Oud.</i>	... 6657
4717. Harknessiana, <i>C.</i>		4745. aconiti, <i>Sacc.</i>	... 2935
<i>& E.</i> ...	6652	4746. obiones, <i>Cr.</i>	... 2936
4718. medicaginis, <i>Fckl.</i>	2915	4747. capparidis, <i>Pass.</i>	2397
4719. pratensis, <i>S. & B.</i>	6653	4748. euphorbiæ, <i>Nsl.</i>	... 2938
4720. subcæspitosa, <i>C. &</i>		4749. corallorhizæ, <i>Peck.</i>	6658
<i>H.</i> ...	6654	4750. cruenta, <i>Sacc.</i>	... 2939
4721. Niessleana, <i>Rab.</i>	... 2917	4751. rubicunda, <i>Rehm.</i>	2940
4722. sodomæa, <i>Not.</i>	... 2918	4752. diaporthoides,	
4723. oreophiloides, <i>S. &</i>		<i>Wint.</i> ...	6659
<i>P.</i> ...	2919	4753. glæospora, <i>B. & C.</i>	2941
4724. salebrosa, <i>Pr.</i>	... 2920	4754. molybdina, <i>Mont.</i>	2942
4725. conferta, <i>Nsl.</i>	... 2921	4755. Nitschkei, <i>Rehm.</i>	2943
4726. nigrella, <i>Rab.</i>	... 2922	4756. purpurea, <i>Rehm.</i>	6126
4727. solani, <i>Romell</i>		4757. cucurbitarioides,	
4728. Delawayi, <i>Pat.</i>	... 6672	<i>Fab.</i> ...	6127
4729. olericola, <i>B. & C.</i>	2923	4758. lecanora, <i>Fab.</i>	... 6128
4730. anthelmintica, <i>Cke.</i>	2924	4759. eryngii, <i>Fab.</i>	... 6129
4731. eutypoides, <i>Peck.</i>	6655	4760. platanicola, <i>Howe</i>	6130

** *Perithecia hirtella.*

4761. echinops, <i>Hazs.</i>	... 2964	4763. eriophora, <i>Cke.</i>	... 3181
4762. comatella, <i>C. & E.</i>	2965	4764. echinella, <i>Cke.</i>	... 3182

†† *Sporidia 5 septata.*

* *Perithecia glabra.*

4765. planiuscula, <i>Æ.</i>	... 2966	4772. Mertensiæ, <i>Ellis</i>	2972
4766. helminthospora,		4773. bardanæ, <i>Wallr.</i>	... 2973
<i>Ces.</i> ...	2967	4774. guaphalii, <i>West.</i>	... 2974
4767. artemisiæ, <i>Fckl.</i>	... 2968	4775. cæspitosa, <i>Nsl.</i>	... 2975
4768. Sydowiana, <i>Rehm.</i>		4776. medicaginum, <i>Sacc.</i>	2976
4769. Owaniæ, <i>K. & Cke.</i>	2969	4777. maculans, <i>Desm.</i>	... 2977
4770. mirabilis, <i>Nsl.</i>	... 2970	4778. virginica, <i>C. & E.</i>	2978
4771. ogilviensis, <i>B. & Br.</i>	2971	4779. hæmatites, <i>Desm.</i>	2981

4780. striata, <i>Winter</i> ...	2982	4788. scotophila, <i>Sacc.</i> ...	2989
4781. hyperici, <i>Winter</i> ...	2983	4789. nigricans, <i>K.</i> ...	2990
2782. eranthemi, <i>Pat.</i> ...	7479	4790. tenera, <i>Ellis</i> ...	2991
4783. cylindrospora, <i>Awd.</i>	2984	4791. Mulleri, <i>D. By.</i> ...	2992
4784. phyteumatis, <i>Fckl.</i>	2985	4792. Winter, <i>Nsl.</i> ...	6131
4785. psilospora, <i>Awd.</i> ...	2986	4793. cynops, <i>Fab.</i> ...	6132
4786. sarmenticia, <i>S.</i> ...	2987	4794. fæniculacea, <i>Fab.</i>	6133
4787. sapeyensis, <i>Sacc.</i>	2988		

** *Perithecia setulosa.*

4795. appendiculata, <i>Pr.</i>	2993	4797. spectabilis, <i>Nsl.</i> ...	2995
4796. modesta, <i>Desm.</i> ...	2994	= <i>penicillus</i> , <i>S.</i> ...	

††† *Sporidia 6-16 septata.*

4798. agnita, <i>Desm.</i> ...	2996	4809. Castagnei, <i>D. R. &</i>	
4799. acuta, <i>Mong.</i> ...	2997	<i>M.</i> ...	3005
= <i>conformis</i> , <i>Fr.</i>		4810. cadubriæ, <i>Speg.</i> ...	3006
4800. multiseptata,		4811. scapophila, <i>Peck.</i>	3007
<i>Winter</i> ...	6134	4812. clavigera, <i>C. & E.</i>	3008
4801. derasa, <i>B. & Br.</i> ...	2998	4813. Kalmusii, <i>Nsl.</i> ...	3009
4802. pellita, <i>Rab.</i> ...	2999	4814. cercispora, <i>K. & C.</i>	3010
4803. plumbaginis, <i>Pat.</i>	7480	4815. dolioloides, <i>Awd.</i>	3011
4804. torulispora, <i>Cke.</i>	3000	4816. drabæ, <i>Nyl.</i> ...	3012
4805. megalospora,		4817. millefolii, <i>Fckl.</i> ...	3013
<i>Awd.</i> ...	3001	4818. massarioides, <i>S & S.</i>	3014
4806. ptarmicæ, <i>K.</i> ...	3002	4819. napi, <i>Fckl.</i> ...	3015
4807. Saccardiana, <i>Fab.</i>	3003	4820. nectrioides, <i>Sp.</i> ...	3016
4808. anthostomoides,		4821. petiolicola, <i>Sacc.</i> ...	3017
<i>Rehm.</i> ...	3004	4822. Thielensii, <i>West.</i>	3018
		4823. aucta, <i>Nsl.</i> ...	3019

B. FRUCTICOLÆ.

4824. carpogena, <i>Sacc.</i> ...	3057	4829. carpophila, <i>Sacc.</i> ...	3062
4825. lunariæ, <i>B. & Br.</i> ...	3058	4830. bractearum, <i>Sacc.</i>	3063
4826. endiusæ, <i>Fckl.</i> ...	3059	4831. autophila, <i>S. & S.</i>	3064
4827. scrophulariæ, <i>Desm.</i>	3060	4832. fimiseda, <i>Wint.</i> ...	3065
4828. impressa, <i>Preuss.</i>	3061		

C. In *Monocotyledoneis.*

† *Sporidia 2-4 septata.*

4833. Michotii, <i>West.</i> ...	3066	4838. marram, <i>Cke.</i> ...	3070
= <i>biseptata</i> , <i>Awd.</i>		4839. orthogramma, <i>B. &</i>	
= <i>trimera</i> , <i>Sacc.</i>		<i>C.</i> ...	3071
4834. punctoidea, <i>Karst</i>	6674	4840. sorgophila, <i>Peck.</i>	3072
4835. vagans, <i>K.</i> ...	3067	4841. Leersiana, <i>Sacc.</i> ...	3073
4836. personata, <i>Nsl.</i> ...	3068	4842. ischaemi, <i>Pass.</i> ...	3074
4837. microscopica, <i>K.</i> ...	3069	4843. eustoma, <i>Fr.</i> ...	3075

4844. eustomoides, <i>Sacc.</i>	3076	4865. juncina, <i>Awd.</i>	... 3094
4845. eustomella, <i>Sacc.</i>	3077	4866. hysterioides, <i>E. & E.</i>	... 6676
4846. erastophila, <i>Sacc.</i>	3078		
4847. salvinii, <i>Catt.</i>	... 3079	4867. lamprocarpi, <i>Pass.</i>	3095
4848. tritici, <i>Gar.</i>	... 3080	4868. juncicola, <i>Rehm.</i>	... 3096
4849. arundinacea, <i>Sow.</i>	3081	4869. junciseda, <i>K.</i>	... 3097
4850. donacina, <i>S.</i>	... 3082	4870. hydrophila, <i>Sacc.</i>	3098
4851. setulosa, <i>S. & R.</i>	... 3083	4871. heterospora, <i>Not.</i>	3099
4852. marina, <i>E. & E.</i>	... 6675	4872. infernalis, <i>Nsl.</i>	... 6677
4853. micropogon, <i>Sacc.</i>	3084	4873. translucens, <i>Wint.</i>	6678
4854. apogon, <i>Sacc.</i>	... 3085	4874. dasyliirii, <i>Rab.</i>	... 3100
4855. typharum, <i>Desm.</i>	3086	4875. ophiopogonis, <i>Sacc.</i>	3101
4856. typhæ, <i>Karst.</i>	... 3087	4876. oreophila, <i>Sacc.</i>	... 3103
4857. clæospora, <i>Sacc.</i>	... 3088	4877. parvula, <i>Nsl.</i>	... 3104
4858. cyperina, <i>Pass.</i>	... 3089	4878. phormicola, <i>C. & H.</i>	6679
4859. epicarcta, <i>Cke.</i>	... 3090	4879. scabiens, <i>Ces.</i>	... 3105
4860. hemicrypta, <i>Oud.</i>	7482	4880. smilacis, <i>Cast.</i>	... 3106
4861. gigaspora, <i>Nsl.</i>	... 3091	4881. triglochinicola,	
4862. caricinella, <i>K.</i>	... 3092	<i>Curr.</i>	... 3107
4863. sabalicola, <i>Ellis</i>	... 6135	4882. ammophilæ, <i>Lasch.</i>	4521
4864. luzulæ, <i>Winter</i>	... 3093		

†† *Sporidia* 5 septata.

4883. sticta, <i>E. & E.</i>	... 6680	4896. riparia, <i>Sacc.</i>	... 3120
4884. nigrans, <i>Desm.</i>	... 3108	4897. clara, <i>Cke.</i>	... 3121
4885. licatensis, <i>Sacc.</i>	... 3109	4898. caricis, <i>Schr.</i>	... 3122
4886. culmicola, <i>Fr.</i>	... 3110	4899. vectis, <i>B. & Br.</i>	... 3123
4887. Fuckelii, <i>Nsl.</i>	... 3111	4900. rusci, <i>Wallr.</i>	... 3124
4888. Rouselliana, <i>Desm.</i>	3112	4901. obtusispora, <i>Speg.</i>	3125
4889. insignis, <i>K.</i>	... 3113	4902. spartinae, <i>E. & E.</i>	6681
4890. luctuosa, <i>Nsl.</i>	... 3114	4903. lineolaris, <i>Nsl.</i>	... 6682
4891. nardi, <i>Fr.</i>	... 3115	4904. typhiseda, <i>S. & B.</i>	6683
4892. albopunctata, <i>West</i>	3116	4905. pachycarpa, <i>S. & M.</i>	6684
4893. epicalamia, <i>Riess</i>	3117	4906. rhodophæa, <i>Bizz.</i>	6685
4894. maritima, <i>C. & Pl.</i>	3118	4907. hierochloæ, <i>Oud.</i>	... 6686
4895. norfolcia, <i>Cke.</i>	... 3119	4908. præclara, <i>Karst</i>	... 6687

††† *Sporidia* 6-16 septata.

4909. culmifraga, <i>Fr.</i>	... 3126	4919. asparagina, <i>Karst</i>	6689
4910. amphibola, <i>Sacc.</i>	3127	4920. herpotrichioides,	
4911. disseminata, <i>Not.</i>	3128	<i>Not.</i>	... 3135
4912. sylvatica, <i>Pass.</i>	... 3129	4921. pontiformis, <i>Fckl.</i>	3136
4913. secalis, <i>Hab.</i>	... 3130	4922. consobrina, <i>K.</i>	... 3137
4914. graminis, <i>Fckl.</i>	... 3131	4923. littoralis, <i>Sacc.</i>	... 3138
4915. rubelloides, <i>Plow.</i>	3132	4924. Sowerbyi, <i>Fckl.</i>	... 3139
4916. sparsa, <i>Fckl.</i>	... 3133	4925. typhicola, <i>K.</i>	... 3140
4917. intersparsa, <i>Cke.</i>	3134	4926. monilispora, <i>Fckl.</i>	3141
4918. clavicarpa, <i>E. & E.</i>	6688	4927. ammophilæ, <i>Rehm.</i>	6671

D. In *Acotyledoneis*.

- | | | | |
|--|------|---|------|
| 4928. lycopodicola, <i>Peck.</i> | 6690 | 4941. bryophila, <i>Sacc.</i> ... | 3154 |
| 4929. Crepini, <i>West.</i> ... | 3142 | 4942. Heufleri, <i>Nsl.</i> ... | 3155 |
| 4930. Marcyrensis, <i>Ph.</i> | 3143 | 4943. polaris, <i>Sacc.</i> ... | 3156 |
| 4931. campi-silii, <i>Sp.</i> ... | 3144 | 4944. Rivana, <i>Not.</i> ... | 3157 |
| 4932. helvetica, <i>S. & S.</i> | 3145 | 4945. parmeliarum, <i>P. & P.</i> | 3158 |
| 4933. lycopodina, <i>Mont.</i> | 3146 | | |
| 4934. equiseti, <i>K.</i> ... | 3147 | 4946. apocalypta, <i>Rehm.</i> | 6691 |
| 4935. caninæ, <i>P.</i> ... | 3148 | 4947. ramalinæ, <i>Desm.</i> ... | 3159 |
| 4936. arvensis, <i>Speg.</i> ... | 3149 | 4948. sphyradiana, <i>Lahm.</i> | 6692 |
| 4937. hiemalis, <i>S. & S.</i> ... | 3150 | 4949. lemaneæ, <i>Cohn.</i> ... | 3160 |
| 4938. asplenii, <i>Rab.</i> ... | 3151 | = <i>fluviatilis</i> , <i>P. & P.</i> | 3161 |
| 4939. caffra, <i>Thum.</i> ... | 3152 | 4950. stereicola, <i>Ellis</i> ... | 6136 |
| 4940. aquilina, <i>Pass.</i> ... | 3153 | 4951. fungicola, <i>Wint.</i> ... | 7483 |

E. *Species colore dubiæ.*† In *Dicotyledoneis*.

- | | | | |
|---------------------------------------|------|--|------|
| 4952. stictostoma, <i>B. & C.</i> | 3162 | 4961. stictoides, <i>B. & C.</i> | 3171 |
| 4953. lophanthi, <i>B. & C.</i> | 3163 | 4962. cibostii, <i>Ces. & Not.</i> | |
| 4954. digitalis, <i>Cr.</i> ... | 3164 | <i>Myc. Un.</i> | 165 |
| 4955. teucarii, <i>Cr.</i> ... | 3165 | 4963. Morthieri, <i>Roum.</i> | |
| 4956. nesodes, <i>B. & Br.</i> | 3166 | <i>F. Gall.</i> | 1843 |
| 4957. janus, <i>B. & C.</i> ... | 3167 | 4964. phlomidis, <i>Roum.</i> | |
| 4958. indepressa, <i>D. R.</i> | | <i>F. Gall.</i> | 1938 |
| <i>& M.</i> ... | 3168 | 4965. plerothecæ, <i>Roum.</i> | |
| 4959. taxicola, <i>Peck.</i> | 3169 | <i>F. Gall.</i> | 1837 |
| 4960. olivæspora, <i>B. & C.</i> | 3170 | | |

†† In *Monocotyledoneis*.

- | | | | |
|--|------|---------------------------------------|------|
| 4966. lucorum, <i>Cr.</i> ... | 3172 | 4971. phragmiticola, <i>Cr.</i> | 3177 |
| 4967. Weddellii, <i>M.</i> ... | 3173 | 4972. ceratispora, <i>B. & C.</i> | 3178 |
| 4968. incarcerationata, <i>B. & C.</i> | 3174 | 4973. Beaumontii, <i>B. & C.</i> | 3179 |
| 4969. zizaniæcola, <i>B. & C.</i> | 3175 | 4974. duplex, <i>Sow.</i> ... | 3180 |
| 4970. latebrosa, <i>Ellis</i> ... | 3176 | | |

II. EUHEPTAMERIA. *Sporidia medio colorato.*

- | | | | |
|------------------------------------|------|---------------------------------------|------|
| 4975. uncinata, <i>Nsl.</i> ... | 6693 | 4979. mesædema, <i>B. & C.</i> | 3187 |
| 4976. obesa, <i>D. R. & M.</i> | 3184 | 4980. helichrysi, <i>Fab.</i> ... | 3188 |
| 4977. elegans, <i>Rehm.</i> ... | 3185 | 4981. bicuspidata, <i>C. & H.</i> | 6649 |
| 4978. Thumeniana, <i>Nsl.</i> | 3186 | | |

III. CLYPEOSPHERIA. *Perithecia clypeata.**Sporidia subtriseptata.*

- | | | | |
|--|------|-------------------------------------|------|
| 4982. contempta, <i>D. R. & M.</i> | 3196 | 4984. aliquanta, <i>C. & E.</i> | 3198 |
| 4983. hyperici, <i>Plow.</i> ... | 3197 | 4985. euphorbiacea, <i>Pass.</i> | 3199 |
| | | 4986. Morreni, <i>West</i> ... | 6694 |

IV. REBENTISCHIA. *Sporidia 3-5 septata candata.*

- | | |
|------------------------------|------|
| 4987. typhæ, <i>Fab.</i> ... | 2893 |
|------------------------------|------|

SOME EXOTIC FUNGI.

By M. C. COOKE.

Seynesia melanosticta, *Cke. & Mass.*

Epiphylla. Peritheciis sparsis, solitariis, dimidiatis, basin concretis (vix $\frac{1}{2}$ mm. diam.), atris, nitidis, ostiolo pertuso. Ascis cylindraceis, octosporis. Sporidiis uniserialibus, ellipticis, uniseptatis, vix constrictis, pallide fuscis, $10 \times 3-5 \mu$.

On living leaves of *Alsodeia*, sp. nov. Mount Ophir, Malacca (*R. W. Hullett*).

Cintractia pulverulenta, *Cke. & Mass.*

Ovaria implens, tumefaciens, massam atram, duram, demum pulveraceam, efficiens; glomerulis subrotundis, vel ovoideis, ($40-50 \mu$), sporis circa 40, coacervatis, globosis, subtiliter verruculosus, $8-10 \mu$, fuscis.

On *Erianthus*. Nungklo, Khasia (*C. Baron Clarke*, 44069).

Cintractia patagonica, *Cke. & Mass.*

Intra ovaria matura orta. Sporis in globulas adglutinatiss, demum secedentibus, globosis, verruculosus, læte fuscis, $7-9$ plerumque 10μ diam.

On *Bromus unioides*. Bahia Blanca, N. Patagonia (*G. Claraz*).

Dendrodochium verticillatum, *Cke. & Mass.*

Sporodochiis pulvinatis, molliusculis, gelatinosis, carneis, erumpentibus ($\frac{1}{2}-1$ m. diam.), sporophoris repette verticillatoramosis, conidiis acrogenis, ovatis, hyalinis, $5 \times 2 \mu$.

On rotting *Liquidambar*. S. Carolina (*Ravenal*, No. 2796).

Hydnum (Resupinatum) cretaceum, *Cke.*

Resupinatum, longe effusum, album. Subiculo crassiusculo, tomentoso, niveo. Aculeis robustis, subulatis, dependentibus, obtusis, ad basim connatis ($1-2$ mm. long), plerumque compressis, farinaceo-cretaceis. Sporis $4 \times 3 \mu$.

On bark. Brazil (*Glazion*, 18118).

Spreading 3 or 4 inches, with a chalky appearance, as if dusted with lime.

Cintractia cryptica, *Cke. & Mass.*

Intra ovaria cryptica, minuta, inconspicua. Sporis aggregatis, ovato-globosis $30-40 \mu$; sporis singulis, compresso-globosis, ad apicem minute verruculosus, brunneis, $12-14 \mu$ diam.

On *Pollinia argentea*. Munepore (*C. B. Clarke*).

Macrophoma Ehretiae, *Cke. & Mass.*

Peritheciis globoso-depressis, sparsis, tectis, atris; ostiolo pertusis. Sporulis ellipticis, hyalinis, utrinque rotundatis ($20-22 \times 10 \mu$), basidiis bacillaribus, simplicibus vel furcatis, suffultis.

On branches of *Ehretia formosana*. N. Coast of Formosa.

Gnomonia coriacea, *Cke. & Mass.*

Peritheciis minutis, in maculos orbiculares congestis, foliorum parenchymati innatis, ostiolo elongato, sursum leniter attenuato. Ascis clavato-stipitatis, octosporis. Sporidiis uniseptatis, obtusis, hyalinis, $10 \times 2-3 \mu$.

On coriaceous leaves. Brazil (*Glaziou*, No. 18083).

Micropeltis maculata, *Cke. & Mass.*

Epiphylla, maculæformis. Peritheciis dimidiatis, orbiculari-convexulis, minutis, atris, nitidis, maculo fuligineo irregulari congregatis; ostiolo pertuso; ascis clavatis, octosporis; sporidiis fusiformibus, triseptatis, hyalinis, $14-15 \times 3-4 \mu$.

On dead coriaceous leaves. Brazil (*Glaziou*, 18076, 18093, 18080).

Clypeolum zeylanicum, *C. & M. Grev.* XVII.

This species also on the same and on other leaves from Brazil (*Glaziou*, 18070, 18084, 18078).

FUNGUS FORAYS, 1889.

HACKNEY NATURAL HISTORY SOCIETY.—For the past ten years Epping Forest has been the scene of one or two forays in the autumn in search of fungi, and on Saturday, September 14th, the first of these for the present season took place under the auspices of the Hackney Natural History Society. Fungus-hunters, like farmers, are privileged to grumble at the weather, and this year the traditional grumble was indulged in; for, however fine and enjoyable the day might be, the ground was so dry and hard that the fungi had no chance. Somehow or other the past two or three years have been so exceptional as regards fungi, that fungus-hunters have been almost driven to despair. It has been the custom to make a list at these excursions of all the species identified during the day, and the totals are compared year by year. At the corresponding excursion last year the list included some 150 species, of which twenty were new to the forest, but on the present occasion the list only reached 108, and only four new species (or five, including a new mould of great interest) and two well-marked varieties were determined. The species found for the first time in the forest area were *Agaricus* (*Pholiota*) *præcox*, *Agaricus semi-vestitus*, *Cortinarius torvus*, and *Trichia scabra*. The new mould was *Rhinotrichum aureum*. The incident of the day, however, was the finding of *Hydnum diversidens*, upon some trunks in Monk's wood. This species was first found in Britain in 1884, when Mr. H. T. Wharton collected it from a trunk at Fairmead, and since then it has only once been met with until the present occasion. It is a rare species in all parts of Europe. As for the residue of the day's gathering, it was, on the whole, very commonplace; the number of individuals of all species

were very few, and those of the most ordinary kind. Even those discovered for the first time in the forest are common enough in other parts of the country, and some species usually common everywhere could not be seen at all. Only six specimens of the well-known "chantarelle" could be found, and these are usually collected by the basketful for cooking. Not a single *Boletus edulis* could be seen anywhere, while such things as *Agaricus velutinus*, *Agaricus infundibuliformis*, *Marasmius peronatus*, *Craterellus cornucopioides*, *Panus stypticus*, etc., could not be seen at all. The most prominent genus was *Russula*, but of all the seventy British species of *Tricholoma* there were but two, and of the fifty-three species of *Clitocybe* there were but two, and thus throughout the whole of the white-spored Agarics. This peculiarity was also remarked last year. Although of the single large genus *Agaricus* no fewer than 825 species are recorded for Great Britain, only thirty-four were recognized during that day in the forest. All together the edible fungi collected, at all fit for the table, would not have constituted more than one meal for a healthy man.

ESSEX FIELD CLUB.—Following within a fortnight of the Hackney Society, the Essex Field Club held their annual Foray in Epping Forest on Friday and Saturday, September 27th and 28th, in search of fungi. The excursion on Friday was taken in the woods north of Epping, and on Saturday around Theydon Bois. The company was not so large as in many of the preceding years, but the weather continued fine and agreeable. This was the tenth annual foray of the Essex Field Club for this purpose, but the soil was so hard and dry, notwithstanding recent rains, that all kinds of fungi were very scarce. The total number of species determined as having been seen during the two days was 138, being less than last year, which also was unfavourable. Although the total was small, it included one species, *Paxillus Alexandri*, new to the British Islands, and five species additional to the Essex list, viz., *Agaricus (Clitocybe) gallinaceus*, Fr.; *Russula Linnæi*, Fr.; *R. incarnata*, Q.; *Lycoperdon saccatum*, Fr.; and *Diachæa leucopoda*, Bull. In the evening, after a substantial tea, the usual meeting was held in a large room at Rigg's Retreat, and when the business matters were disposed of, the exhibition of fungi duly inspected and commented upon, the results of the excursion were detailed by Dr. M. C. Cooke, and comparisons instituted between the Essex list of fungi and those published by other counties, notably that of Herefordshire. The whole number of Agaricini found in Britain now reaches 1,335 species, of which 483 have been recorded for Herefordshire, and now about 410 for Essex. This was considered to be a very favourable result, seeing that continuous excursions of four days each have been held by the Woolhope Club for the

past twenty years, that a variety of localities have been explored, that a greater humidity and variety of soil characterize the Herefordshire districts, and a larger number of experienced workers have every year been associated with the excursions. Following upon these remarks, allusion was made to the life and labours of the late Rev. M. J. Berkeley, especially in connection with mycology, and a sympathetic audience listened for some time, with manifest interest, to reminiscences of the twenty-five years of intercourse between the speaker and the deceased. In conclusion, young and active members of the club, efficient in the use of the microscope, were urged to direct their attention to the microscopic fungi of the forest hitherto almost unknown. It was urged that there were two or three compact groups which might be taken up independently by different individuals, and explored with advantage. Such were the Myxogasters, the Discomycetes, and the Uredinous fungi, for all of which handy and recent text-books were available at a cheap rate; so that there was no longer excuse for leaving so many of the minute fungi of Essex without investigation. A complete and revised list of the larger fungi of Essex has already been prepared, and it is hoped will soon be published, and in the hands of the members.

WOOLHOPE FUNGUS FORAY.—Twenty-one years ago the Woolhope Club organized its first "Foray amongst the Funguses," as it was called, the primary object being to collect specimens of edible fungi for cooking and serving at the annual dinner. Subsequently and speedily the scope of the forays was widened, so as to include all the larger fungi, especially the Hymenomycetes, and has been continued with more or less success down to the present day. The total number of the species of British Agaricini may be taken as 1334, and of these 483 have been collected in Herefordshire, as recorded in the new *Herefordshire Flora*. This is, as yet, the largest number recorded for any British county, that of Essex having reached only 410. The Woolhope excursions for this year commenced on October 1st, and the place of assembly was Ludlow, in Shropshire, with the weather favourable, but the ground and the woods on this side of the kingdom were too dry to give any promise of success. The party was a smaller one than usual, scarcely exceeding ten on any of the days, whilst the lack of "game" represented also a lack of enthusiasm. Amongst those who took part in the explorations of the week were the Rev. Canon Du Port, Rev. J. E. Vize, and Messrs. Bucknall, Phillips, Plowright, and M. C. Cooke. Tuesday's excursion was made in the woods of Downton Castle, over ground which had not been visited by the Club for many years; but it soon became painfully manifest that the old success was not to be realized, and after patient and diligent search for about four hours, only about eighty species could be

enumerated, and of these only one or two individuals had been seen. Two old and dry specimens of *Strobilomyces* only were found, and this has generally been a species of certain occurrence somewhere during the Woolhope week. *Marasmius Hudsoni* was rather plentiful on Holly leaves, but scarcely anything else of interest. The Wednesday's excursion was made in the woods of Downton Hall, now for the first time visited by the Club. The excursion was in itself a pleasant one, but as barren of results as the previous day had been, only sixty-eight species being determined, of which the most interesting was *Agaricus (Inocybe) hæmactus*, a species first found at Credin-hill several years ago, and now seen again for the second time. Although the total number of species found was below that of the Tuesday, there was a larger number of interesting species, such as *Agaricus pelianthinus*, *calamistratus*, *acerosus*, *Friesii*, *Marasmius erythropus*, and *Russula Linnæi*. The Club day, Thursday, was occupied by a morning excursion to Dinmore, where about sixty species were determined between 10 a.m. and 2 p.m.; but this number had to be made up by recourse to microscopical species. The annual dinner afterwards, at the Green Dragon Hotel, was characterized by no especial feature, and *Hydnum repandum* was the fungus dish cooked "from the Club recipes," and served round to the assembled guests. In the evening, at a conversazione held at the house of T. Cam, Esq., one of the past presidents of the Club, a very large party of ladies and gentlemen were assembled, and papers read by E. C. Phillips, F.L.S., "On the Occurrence of the great Black Woodpecker in Great Britain;" by Rev. J. E. Vize, on "The Breathing System of Flowering Plants and their Allies;" and by W. Phillips, F.L.S., "On Popularizing the Knowledge of Edible and Poisonous Fungi," which latter was followed by a lively and interesting discussion, mainly on the proposal to recognize a few definite popular names for common edible fungi, and to disseminate information concerning them as widely as possible, especially amongst rural populations. The last day "of this eventful history" was devoted to Stoke Edith Park, and as park lands are perhaps the driest and most unproductive of any this year, it will not be surprising to learn that the record scarcely exceeded fifty, although more than half of these were pastoral species, which had not been met with on previous days. There is nothing more left to be recorded, save, after a careful comparison of all the lists, it may be that one or two species have been added to the county catalogue, but this is very doubtful. Reports have reached us of a plentiful harvest of fungi in Devonshire, and of a profusion in the North, but our own experiences in Essex, Shropshire, Herefordshire, Surrey, etc., during the past two or three weeks have satisfied us that, as a general rule, the present autumn has been unusually barren of fungi, no better, if not worse, than last year.

THE SUTTON COLDFIELD VESEY CLUB organized a half-day's excursion to Trickley Coppice, on Saturday afternoon, October 5th, for the collection of fungi. The whole time spent upon the ground was something like two hours, and during the entire period the rain was falling sharply and persistently, so that, at its termination, all the unfortunate excursionists, numbering about five-and-twenty, presented the unenviable appearance of drowned rats. Such an exhibition is not a novelty to fungus hunters, but it is one which has not been experienced at any organized excursion for the past two or three years. However, there was one redeeming feature, that the number of species collected was larger, proportionately, than at any excursion of the present year. The ground was sufficiently wet before the downfall began, and at its close was much more than sufficiently soft. The conductors on this occasion were Messrs. J. E. Bagnall, Grove, and M. C. Cooke, who prepared a list of the species determined, and reported a total of upwards of sixty, which was a fair average for almost any ordinary season, of thirty species per hour, but a high average for a season when about ten species per hour has hardly been exceeded. The collection included many very common species, the edible portions of which were selected and cooked under the superintendence of Mr. Grove, and formed an addition to the inevitable tea at the end of the afternoon. It may be of interest to mycophagists to learn that of the species eaten were *Pacillus involutus* and *Lactarius turpis*, two which certainly do not look very inviting when gathered, but, as here proved, perfectly harmless, and, if not particularly delicate, at least edible when more attractive viands are absent. The list of the afternoon's spoils included seven species of *Russula*, five species of *Lactarius*, eighteen white-spored Agarics, and some eight or nine Agarics with coloured spores. Whether any additions were made to the list recorded of the Warwickshire fungi cannot be determined at once, but no individual species of particular and special interest was secured. Had the weather been more propitious, there is no doubt the list would have been materially increased.

HAMPSHIRE FIELD CLUB.—The third annual fungus hunt in the New Forest was taken on Friday, October 25th, under the direction of the Rev. W. L. W. Eyre and M. C. Cooke. The party, numbering in all about five-and-twenty, started from the Lyndhurst Road Station, soon after 9.30, and proceeded through Buskett's Wood to the Kennels, and thence skirting the road to Lyndhurst. The day was fine, pleasant, and agreeable, and the number of species recorded about 140, of which 60 had not previously been entered on the Hampshire list. No species were found that were absolutely new, and few that were rare or interesting. Those most worthy of note were *Ag. (Entoloma)*

jubatus, Ag. (*Hypholoma*) *epixanthus*, and *capnoides*; Ag. (*Mycena*) *leucogalus*, Ag. (*Hebeloma*) *testaceus*, *Cantharellus* *deveaux*, *Hydnum* *gelatinosum*, *Cortinarius* *talus*, and *Boletus* *duriusculus*. At an evening meeting, held at the Forest Hotel, the specimens were exhibited, and explained. Some remarks were made by the Chairman (Rev. W. L. W. Eyre) and M. C. Cooke, chiefly in reference to Edible and Poisonous species, and as to what steps should be taken to diffuse certain and useful knowledge amongst the rural population as to what to eat, and what to avoid; the conclusion being that a few of the most approved species should be selected, to which popular vernacular names should be given, and efforts should be made to facilitate the general determination of these species. A short excursion on Saturday morning brought the foray to a close.

BRITISH PYRENOMYCETES.

BY G. MASSEE.

(Continued from p. 12.)

Fam. 15. CAULICOLÆ, Fr. Immersedly innate, usually occurring on the dead stems of herbaceous plants.

GEN. 1. **PHOMATOSPORA**, Sacc. Perithecia covered or erumpent, sporidia continuous, hyaline.

* GENUINA. Without paraphyses.

P. Berkeleyi, Sacc. Syll. 1650; Hdbk. 2651 (= *Sphaeria phomatospora*, Berk.).

On potato stalks. Bexley, Weybridge, Highgate, Gloucester.

P. endopteris, Ph. & Pl., Sacc. Syll. 6383.

On *Pteris*. Leighwood, Bristol.

** PHYSALOSPORA. Paraphysate.

P. euphorbiæ, P. & P., Sacc. Syll. 1666.

On stems of *Euphorbia amygdaloides*. Dinmore.

P. psoramoides, Borr., Sacc. Syll. 6396.

On thallus of *Parmelia pulverulenta*.

GEN. 2. **DIDYMELLA**. Sporidia uniseptate, hyaline.

* On Dicotyledons.

D. planiuscula, B. & Br., Sacc. Syll. 2158; Hdbk. 2729.

On herbaceous stems. Batheaston.

D. superflua, Fckl., Sacc. Syll. 2166.

On nettle. Shere, Lynn.

D. tosta, B. & Br., Sacc. Syll. 2172; Hdbk. 2731.

On *Epilobium*. Abinger, Shere, Dinmore, Rudloe Bath-easton.

D. commanipula, B. & Br., *Sacc. Syll.* 2173; *Hdbk.* 2730.

On capsules of *Scrophularia*. Forfarshire.

D. bryoniæ, Fckl., *Sacc. Syll.* 2174.

On *Bryonia dioica*. Shere, North Wootton.

** On *Monocotyledons*.

D. refracta, Cooke, *Sacc. Syll.* 2188.

On *Scirpus*. North Wootton.

* * On *Acotyledons*.

D. hyphenis, Cooke, *Sacc. Syll.* 2193; *Hdbk.* 2688.

On *Pteris*. Shere.

D. epipolytropa, Mudd., *Sacc. Syll.* 6488.

On *Lecanora polytropa*.

GEN. 3. **METASPHÆRIA**. Sporidia multiseptate, hyaline.

A. On *Dicotyledons*.

* *Sporidia* 2-4 septate.

M. tritorulosa, B. & Br., *Sacc. Syll.* 3404; *Hdbk.* 2770.

On *Epilobium*, etc. Batheaston, Shrewsbury, Spye Park.

M. Thwaitesii, B. & Br., *Sacc. Syll.* 3420; *Hdbk.* 2722.

On *Helianthus tuberosus*. Batheaston, Bristol.

M. complanata, Tode, *Sacc. Syll.* 3421; *Hdbk.* 2713.

On herbaceous stems. Common.

B. On *Monocotyledons*.

* *Sporidia* 2-3 septate.

M. cumana, S. & Sp., *Sacc. Syll.* 3486.

On leaves of *Carex*.

M. anarithma, B. & Br., *Sacc. Syll.* 3477; *Hdbk.* 2771.

On *Aira cæspitosa*. Batheaston.

M. recutita, Fr. *Sacc. Syll.* 3484; *Hdbk.* 2772.

On grasses.

** *Sporidia* 5 to many septate.

M. sabuletorum, B. & Br., *Sacc. Syll.* 3499; *Hdbk.* 2719.

On *Ammophila*. Forres N.B., Hunstanton.

M. acorella, Cooke, *Sacc. Syll.* 7040.

On *Acorus calamus*. Totteridge.

* * On *Acotyledons*.

M. cetraricola, Nyl., *Sacc. Syll.* 3517.

On *Cetraria Islandica*. Bræmar.

GEN. 4. **RAPHIDOSPORÆ.** Sporidia filiform, hyaline.

On *Dicotyledons*.

R. rubella, Pers., Sacc. Syll. 4017; Hdbk. 2700.

On herbaceous stems. Common.

R. urticæ, Rabh., Sacc. Syll. 4019; Hdbk. 2701.

On nettle, etc. Darent, Shere.

R. ulnaspora, Cooke, Sacc. Syll. 4020; Hdbk. 2703; fig. 396.

On nettle. Shere.

R. acuminata, Sow., Sacc. Syll. 4025; Hdbk. 2702.

On thistles, etc. Common.

R. nigrificans, Cooke, Sacc. Syll. 4039.

On *Brassica*. Eastbourne.

On *Monocotyledons*.

R. cariceti, B. & Br., Sacc. Syll. 4065; Hdbk. 2707.

On sedges, etc. Batheaston.

R. eucrypta, B. & Br., Sacc. Syll. 4070; Hdbk. 2705.

On *Iris foetidissima*. Somerset.

R. helicospora, B. & Br., Sacc. Syll. 4072; Hdbk. 2706.

On *Carex paniculata*. Shere, Batheaston.

* * OPHIOCHÆTA. *Perithecia setulose*.

R. herpotricha, Fr., Sacc. Syll. 4080; Hdbk. 2704.

On grasses.

FUNGI OF BELGIUM.

Dr. Lambotte has just issued the second part of his supplement to "La Flore Mycologique de la Belgique," consisting of 300 pages with plates, containing the Sphærosporeæ, Melanconieæ, and Hyphomycetes; comprehending an addition of 850 species since 1880. The plates are in outline, and in a peculiar and unique manner, illustrate the several genera. It need hardly be said that the classification and arrangement is that of Saccardo's "Sylloge," for that will necessarily form the basis of the disposition of all these groups, for some time to come. A catalogue of this kind does not furnish much material for criticism, for it is little more than a catalogue, with the addition of spore measurements to each species, which must be accepted as a decided improvement upon the old method of a barren list, although we cannot affirm that the measurements have been verified, or whether they are simply those of the "Sylloge." In our opinion it would have been an improvement to have added to each species the reference to the page, or the

number, under which it is described in the "Sylloge," in order to facilitate reference. This would not have added a page to the bulk of the "Supplement," and would certainly have saved the student a vast amount of time in turning to Indices.

BRAITHWAITE'S MOSS-FLORA.

We have so often referred to this work during its progress, that little of commendation is left for us now to say. We are glad to welcome the 12th part, and so will all Bryologists who are interested in the British Moss-Flora. The only drawback is the tardy rate at which the parts make their appearance. However, we must be thankful for small mercies. The present part concludes the Grimmiaceæ, and adds the Schistostegaceæ. It is, moreover, announced to subscribers that the present completes one half of the work. It has occupied nine years to bring us up to the middle; will it take another nine years to bring us to the end? Let us hope that better luck is in store for us.

INDEX LICHENUM BRITANNICORUM.

BY THE REV. J. M. CROMBIE, F.L.S.

PART II.

(Continued from Vol. xv., p. 49.)

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- Sp. 1 *P. rubiginosa* (Thnb.), Del.
 β. caruleobadia (Schl.), Mudd.
 2 *P. brunnea* (Sw.), Nyl.
 f. coronata (Ach.), Nyl.
 3 *P. nebulosa* (Hffm.), Nyl.
 f. biatoroidea, Cromb.
 4 *P. Hookerii* (Sm.), Nyl.
 β. leucolepis (Whlnb.), Nyl.

Genus II. **PANNULARIA**, Nyl.

- Sp. 1 *P. lepidiota* (Smmrf.), Nyl.
 2 *P. microphylla* (Sw.), Nyl.
 f. cheilea, Nyl.

- 3 *P. triptophylla* (*Ach.*), *Nyl.*
 β. incrassata, *Nyl.*
- 4 *P. nigra* (*Huds.*), *Nyl.*
- * *P. psotina* (*Ach.*), *Cromb.*
- 5 *P. triseptata*, *Nyl.*
- 6 *P. melantera* (*Strn.*), *Cromb.*
- 7 *P. carnosa* (*Dcks.*), *Cromb.*
 β. determinata (*Nyl.*), *Cromb.*
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- Sp. 1 *L. hypnorum* (*Hffm.*), *Ach.*
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- * *Squamaria* (*DC.*), *Nyl.*
- 2 *L. crassa* (*Huds.*), *Ach.*
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- 3 *L. lentigera* (*Webr.*), *Ach.*
- 4 *L. chrysoleuca* (*Sm.*), *Ach.*
- 5 *L. cartilaginea* (*Westr.*), *Ach.*
- 6 *L. saxicola* (*Poll.*), *Ach.*
 β. diffracta (*Ach.*), *Fr. fil.*
 γ. versicolor (*Pers.*), *Fr. fil.*
- * *L. albomarginata*, *Nyl.*
- 7 *L. pruinifera*, *Nyl.*
- 8 *L. fulgens* (*Sw.*), *Ach.*
- * *Placopsis*, *Nyl.*
- 9 *L. gelida* (*L.*), *Ach.*
- * *Placodium* (*DC.*), *Nyl.*
- 10 *L. elegans* (*Link.*), *Ach.*
 β. tenuis (*Whlnb.*), *Ach.*
- 11 *L. murorum* (*Hffm.*), *Nyl.*
 β. corticicola, *Nyl.*
- * *L. tegularis* (*Ehrh.*), *Nyl.*

- f. Arnoldi (*Wedd.*), *Nyl.*
- β. obliterascens, *Nyl.*
- 12 *L. dissidens*, *Nyl.*
- 13 *L. callopisma*, *Ach.*
- * *L. sympagea* (*Ach.*), *Nyl.*
- 14 *L. cirrochroa* (*Ach.*).
- 15 *L. lobulata* (*Smmrf.*), *Nyl.*
- f. obliterata (*Pers.*), *Nyl.*
- 16 *L. scopularis*, *Nyl.*
- 17 *L. miniatula*, *Nyl.*
- 18 *L. granulosa* (*Mull. Arg.*), *Nyl.*
- 19 *L. teicholyta* (*DC.*), *Nyl.*
- f. arenaria (*Pers.*).
- 20 *L. Lallavei* (*Clem.*), *Nyl.*
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- * *Candelaria*, *Nyl.*
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- 23 *L. laciniosa* (*D.F.*), *Nyl.*
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- 25 *L. medians*, *Nyl.*
- 26 *L. epixantha* (*Ach.*), *Nyl.*
- * *Eulecanora*, *Nyl.*
- a Stirps, *L. cerinæ.*
- 27 *L. citrina*, *Ach.*
- f. depauperata, *Cromb.*
- 28 *L. flavocitrina*, *Nyl.*
- 29 *L. incrustans*, *Ach.*
- 30 *L. aurantiaca* (*Lghft.*), *Nyl.*
- * *L. erythrella* (*Ach.*), *Nyl.*
- β. inalpina (*Ach.*), *Nyl.*
- f. rubescens (*Ach.*), *Nyl.*
- 31 *L. crenulatella*, *Nyl.*
- 32 *L. ochracea* (*Schær.*), *Nyl.*
- 33 *L. ferruginea* (*Huds.*).
- β. festiva (*Ach.*), *Nyl.*
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- 35 *L. fuscoatra* (*Bayrh.*), *Nyl.*
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- 40 *L. Turneriana* (*Ach.*), *Nyl.*
- 41 *L. albolutescens*, *Nyl.*
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 - * *L. calva* (*Dcks.*).
 - f. *incrustans* (*DC.*), *Cromb.*
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- 61 *L. roboris* (*Duf.*), *Nyl.*
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- 65 *L. coniopta*, *Nyl.*
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- 69 *L. diplinthia*, *Nyl.*
- 70 *L. umbrinofusca*, *Nyl.*
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(*To be continued.*)

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A QUARTERLY RECORD OF CRYPTOGAMIC BOTANY
AND ITS LITERATURE.

AUSTRALIAN FUNGI.

By M. C. COOKE.

(Continued from p. 26.)

Sphæroopsis (Macropodia) phomatoidea, C. & M.

Hypophyllous. Perithecia scattered over irregular brown spots, caused by some mining larvæ, convex, at first covered, black, pierced with a pore. Sporules elliptic, rounded at the ends, nucleate, amber-brown ($8 \times 4.5 \mu$), on rather short, curved basidia.

On *Eucalyptus* leaves. Victoria. (Martin, 473.)

Capnodiastrum orbiculatum, Cke. & Mass.

Hypophyllous. Spots orbicular (3 mm. diam.), consisting of a black interwoven mycelium. Perithecia minute, globose, sub-membranaceous, seated on the mycelium. Spores (not contained in asci) elliptical, brown, with a paler band across the centre, $12 \mu \times 4 \mu$.

On coriaceous leaves. Bellenden Ker, Queensland. (Bailey, 818.)

FUNGI OF MADAGASCAR.

Collected by MR. SCOTT ELLIOT.

Schizophyllum commune, Fr.

Lentinus exilis, Kl. (2761).

Lenzites repanda, Fr., var. (3006).

„ *Beckleri*, B.

„ *applanata*, Fr. (2755).

Fomes lucidus, Fr. (2804).

„ *annosus*, Fr. (3008).

„ *cingulatus*, Berk. (2789).

Fomes rubiginosus, *Berk.*

Polystictus flabelliformis, *Fr.* (2764).

„ *sanguineus*, *Fr.*

„ *scruposus*, *Fr.* (2796).

„ *occidentalis*, *Fr.* (2735).

Poria vulgaris, *Fr.*

Trametes gausapatus, *B. & C.* (2902).

Irpex flava, *Jungh.*

Hymenochæte tenuissima, *Berk.*

Cyphella (*Phæosporæ*) *fulvodisca*, *C. & M.*

Hirneola auricula judææ, *Fr.* (2861).

Tryblidiella rufula, *Spr.*

Peziza (*Tarzetta*) *aluticolor*, *Berk.*

Nectria saccharina, *Berk.*

„ *adelphica*, *C. & M.*

Valsa ceratophora, *Tul.*

„ *monadelpha*, *Fr.*

Phyllachora graminis, *Pers.*

Æcidium oxalidis, *Thum.*

Puccinia malvacearum, *M.*

Uredo campanularum, *C. & M.*

Cyphella* (*Phæosporæ*) *fulvodisca*, *Cke. & Mass.

Gregaria. Cupulis breviter stipitatis, cyathiformibus, albidis, pilis brevissimis hyalinis obductis ($\frac{1}{2}$ mm. diam.), margine tenui, incurvo, Hymenio lævi, fulvo. Sporis ellipticis, nucleatis, fulvis ($7-8 \times 4-5 \mu$.)

On decorticated branches. Fort Dauphin, Madagascar. (*Scott Elliot*.)

Diploderma pachythrix*, *Cke. & Mass.

Subglobose; exoperidium thin, fragile, cinereous; endoperidium subcartilaginous, thin, persistent, pallid; capillitium consisting of thick parallel fibres composed of thick-walled, hyphæ agglutinated in bundles and radiating from a central woody nucleus to the endoperidium; spores pale ochraceous, elliptical, minutely warted, $9-10 \times 4-5 \mu$.

Tarwin, Victoria. (*Mrs. Martin*, 459.)

Subterranean about 1 in. in diameter. The coarse capillitium, consisting of strands of agglutinated hyphæ, resembles in appearance the fibrous portion of the pericarp of a cocoanut.

Uredo campanularum*, *C. & M.

Hypophylla. Soris pallidis, sparsis, sub-bullatis, diu integris, demum fissuratis, pulverulentibus. Uredosporis oblongis, leniter asperulis, pallide flaventibus, $16 \times 12 \mu$.

On leaves of *Lightfootia*. Fort Dauphin, Madagascar. (*Scott Elliot*, No. 2690.)

Nectria adelphica, Cke. & Mass.

Cæspitosa. Peritheciis in cæspitulos minutos (4-10), stromate aggregatis, globosis, compressis vel difformibus, lævibus, cinnabarinis, ostiolo distincto pertusis, vix collabentibus; ascis cylindræis, octosporis; sporidiis ellipsoideis, magnis, uniseptatis, vix medio constrictis, utrinque subconoideis, hyalinis ($30-35 \times 10 \mu$), nucleatis, demum leniter longitudinaliter striatulis.

On branches. Fort Dauphin, Madagascar. (Scott Elliot.)

Habit and appearance resembling *N. coccinea*.

NEW BRITISH FUNGI.

BY M. C. COOKE.

(Continued from p. 28.)

Agaricus (Lepiota) emplastrum, Cke. & Mass.

Pileus convex, then expanded (2-3 inches), silky, pallid, covered at first with a smooth, membranaceous, dark-brown cuticle, which splits up into large, adherent, plaster-like patches or scales, margin smooth, naked. Stem equal, fibrillose (3 in. $\times \frac{1}{2}$ in.), fistulose, girt by a superior erect ring, with a marginal brown band. Flesh turning pink when cut, gills crowded, free, remote, narrowed behind, leaving a broad collar round the stem. Taste and smell none. Spores apiculate at one end, nucleate, large, white, $20 \times 10-12 \mu$.—Cooke Illus. Suppl. t. 1164.

Gregarious, amongst grass in a churchyard. Ealing, Oct., 1887.

Somewhat resembling *A. Badhami*, but scales smooth and spores larger.

Agaricus (Tricholoma) fallax, Peck 25 Report, t. 1, f. 5-8.

Pileus firm, convex, expanded, rarely depressed in the centre, moist, smooth, yellow (sometimes rufous at the disc), about 1 in. diam. Stem short, smooth, yellow, stuffed, then hollow, sometimes attenuated at the base (1 in. long). Gills rounded behind, crowded, white, then yellowish. Spores 4-5 μ long, ovate.—Cooke Illus. Suppl. t. 1151 A.

Under firs. Scarboro', March, 1883.

Allied to *Ag. cerinus*, P.

Agaricus (Collybia) thelephorus, Cke. & Mass.

Pileus rather fleshy, campanulate, with an acute mammillate umbo (1 to $1\frac{1}{2}$ inch diam.), ochraceous, becoming darker and fuliginous at the apex, margin at first incurved, then repand, faintly striate. Stem cylindrical, equal, hollow, purple at the base, paler at the apex (3-4 in. long), slender, smooth. Gills broadest behind, adnate, rather crowded, spores $8-10 \times 6 \mu$.—Cooke Illus. Suppl. t. 1167.

In peat bogs. Scarboro'.

Near ally to *Ag. collinus*.

Agaricus (Flammula) nitens, Cke. & Mass.

Cæspitose. Pileus hemispherical, convex, then expanded, obtuse ($1-1\frac{1}{2}$ in. diam.), shining, dry, somewhat silky, purple brown, stem ($2-3$ in. \times $\frac{1}{2}$ in.) equal, solid, flesh coloured, fibrillose. Gills crowded, adnate, margin entire, pallid, then umber. Spores almond-shaped, pale brown ($10 \times 5-7 \mu$).—*Cooke Illus. Suppl. t. 1154.*

On the ground. Carlisle, Sept., 1887.

Agaricus (Inocybe) fasciatus, Cke. & Mass.

Cæspitose. Pileus campanulate-convex ($2-3$ in. diam.), tawny, rufous at the disc, silky, clad with minute, darker, squarrose scales, flesh thin; stem slender, equal, or a little attenuated below ($2-3$ in. long), fibrillose, solid, reddish within and without at the base, pallid above. Gills crowded, attenuated in front, rounded behind, or slightly sinuate, thin, soft, pallid. Spores rough, $10 \times 6 \mu$. Odour and taste none.—*Cooke Illus. Suppl. t. 1173.*

On the ground. Kew Gardens.

Agaricus (Inocybe) violaceo-fuscus, Cke. & Mass.

Subcæspitose. Pileus convex, expanded, obtusely umbonate ($1-2$ in. diam.), flocculose, fibrillose, concentrically squamose, dry, umber, margin thin, torn, and fimbriate, stem solid ($2-2\frac{1}{2} \times \frac{1}{4}$ in.), violet above within and without, pallid below, smooth or silky, equal, flesh pallid when old. Gills broad, scarcely crowded, adnate or emarginate, violet, then umber, margin paler, serrulate. Veil at first whitish. Spores smooth, $7-8 \times 4 \mu$.—*Cooke Illus. Suppl. t. 1174.*

Amongst grass, in open places. Park End, Forest of Dean.

Agaricus (Naucoria) obtusus, Cke. & Mass.

Pileus campanulate, obtuse, smooth, becoming faintly striate about the margin, rufous, becoming paler (not much exceeding an inch broad and high); stem equal, fistulose, flesh colour, darker within, especially at the base (2 in. \times $\frac{1}{4}$ in.), smooth. Gills broadly adnate, or with a tooth, broad, ventricose, with a serrate edge. Spores rubiginous, $7-8 \times 4 \mu$.—*Cooke Illus. Suppl. t. 1155.*

On the ground. Scarboro'.

Allied to *Ag. Christinæ*.

Agaricus (Naucoria) nasutus, Kalch. Grev. VIII, 152, t. 142, f. 9.

Pileus thin, rather fleshy, campanulate, terminated by a long papillæform umbo, margin striate or sulcate, smooth, ochraceous. Stem fistulose, equal, flexuous, fibrillose, rather ferruginous; gills emarginate, with a decurrent tooth, somewhat crowded, broad, ventricose, ferruginous.—*Cooke Illus. Suppl. t. 1172 B.*

In swampy places. Scarboro'. Spores $13-14 \times 7-8 \mu$.

Agaricus (Galera) siligineus, Fries Hym. Eur. 267.

Pileus membranaceous, globose-campanulate, then expanded, unequal, even, not turning pale; stem rather flexuous, equal, pallid,

somewhat pruinose; gills adnate, broadly linear, rather crowded, ochre.—*Cooke Illus. Suppl. t.* 1156.

On road scrapings. Scarboro'.

The variety figured turns pale when dry, thus differing from the type. Spores $12 \times 7 \mu$.

Agaricus (Tubaria) muscorum, *Pers. Syn.* 470.

Pileus membranaceous, convex, depressed in the centre, striate, smooth, tawny yellow; stem fistulose, short, of the same colour, incrassated at the base, gills rather decurrent, horizontal, paler.—*Fries Hym. Eur.* 274. *Cooke Illus. Suppl. t.* 1175 B.

Amongst moss on heaths. Scarboro'.

Agaricus (Hypholoma) instratus, *Britz. Melan. f.* 110.

Cæspitose. Pileus hemispherical, convex, broadly umbonate (1 in. or more), dark brown, radiately rugose, stem hollow, equal white and smooth above, fibrillose or squamulose below, veil white, appendiculate. Flesh brownish. Gills subventricose, adnate, brown, then purple brown, paler at the edge. Spores $8 \times 4 \mu$.—*Cooke Illus. Suppl. t.* 1157.

On stumps, near Shrewsbury.

Possibly these specimens belong to the above species of Britzel-meyer, but we have been compelled to expand the description.

Bolbitius grandiusculus, *Cke. & Mass.*

Pileus campanulate, expanded (1-2 in diam.), smooth, pallid and faintly striate at the margin, rufous at the apex, stem smooth, white, fistulose, slender, gradually attenuated upwards (3-4 in. long), gills crowded, linear, narrow, attenuated behind and free, rusty ochre. Spores $15 \times 5 \mu$.—*Cooke Illus. Suppl. t.* 1159.

Amongst grass, on the cliffs. Scarboro'.

Polystictus (Stuposi) fibula, *Fr. Hym. Eur.* 567.

Whitish. Pileus coriaceous, soft, tough, velvety, without zones, sometimes radiately rugose, white within, margin entire, acute; pores small, rounded, acute, at length torn, turning yellowish.

On stumps, &c. Carlisle, Holm Lacey, Epping, near Bristol.

About the size of *P. versicolor*, but thicker, pores longer, surface less hairy, not distinctly zoned. Evidently not uncommon.

Otthia cratægi, *Fckl., Sacc. Syll., No.* 2781.

Perithecia aggregated in dense tufts, rather large, black, globose, minutely papillate, at length perforate; asci stipitate, cylindrical, eight-spored. Sporidia ovate, oblong, uniseptate, constricted, brown ($25-28 \times 12-14 \mu$.)

On branches of *Cratægus*. Newcastle on-Tyne.

Phoma laminariæ, *Cke. & Mass.*

Perithecia gregarious, membranaceous, erumpent, depressedly globose, black, pierced at the apex with a minute pore, sporules profuse, elliptical, hyaline ($8-10 \times 3 \mu$.)

On decaying fronds of *Laminaria*. West Kilbride, Ayrshire. (*D. A. Boyd.*)

Dichomera Laburni (*West p.p.*) *Cke. & Mass.*

Erumpent, cæspitose. Perithecia globose, black, opaque, crowded in considerable numbers upon a definite stroma (5 mm. diam). Sporules elliptical, 3 septate, with one or more longitudinal septa, fuliginous ($22-25 \times 7 \mu$) on short stylospores.

On *Laburnum*. Blakey, Leicester. (*W. A. Vice.*)

This may be a form of *Camarosporium Laburni*, but at any rate it more closely resembles *Cucurbitaria Laburni* in being distinctly cæspitose, on a definite stroma; sporules commonly triseptate, and smaller than in *Camarosporium Laburni*.

FUNGI OF JAVA.

By M. C. COOKE.

The following is portion of a collection made by Mr. Kurz, and communicated to the Rev. M. J. Berkeley:—

Agaricus (Mycena) bambusarum, *Berk. MSS.*

Fasciculatus vel sparsus, albus; pileo orbiculari, convexiusculo, lævi, obsolete umbonato (1 unc. diam.); stipite teretiusculo, fistuloso, lævi (1 unc. long); lamellis confertis, lanceolatis, didymis, sæpe anastomosante-ramosis, acute-adnatis, albis.

Ad truncos Bambusarum. Bogor. (*Kurz*, 240).

Agaricus (Mycena) tintinnabulum, *Fries.*

Ad truncos. Bogor (*Kurz*, 544).

Agaricus (Omphalia) reversus, *Berk.*

Solitarius; pileo carnoso, suborbiculari, reverso, conico-umbonato, flavescente-albido (sub 1 unc. diam.); stipite rectiusculo, fistuloso, lævi (1 unc. long); lamellis distantibus, crassis, acie obtusis, lanceolatis, decurrenti-adnatis, albidis.

Ad terram argillaceam. Bogor. (*Kurz*, 324).

Agaricus (Pholiota) alutisporus, *Berk.*

Gregarius, gracilis, nonnunquam fasciculatus, sordide albus; pileo convexiusculo, conico vel obsolete umbonato, sub lente lævi, v. ruguloso, membranaceo ($\frac{1}{2}$ unc. diam.). Stipite fistuloso, annulato, tereti, elongato, lævi; lamellis confertis, lanceolatis, obtuse-adnatis, cum sporis alutaceis.

Ad terram argillaceam humidum. Bogor. (*Kurz*, 333).

Agaricus (Naucoria) multiferus, *Berk.*

Cæspitosus. Pileo hemispherico, obsolete umbonato, sparse granuloso, cinerascens (in colorem testaceam vergens) in statu senili quidquam obsolete plicato, membranaceo, subcoriaceo; stipite longiusculo, tereti, fistuloso, subglabro, brunnescente vel sordidissimo albo, fibroso-carnosulo; lamellis confertis, lineari-lanceolatis, rotundato-adnatis. Sporis fulvis, $6-7 \times 3 \mu$.

Ad margines viarum. Bogor. (*Kurz*, 525).

Agaricus (Naucoria) micromegas, Berk.

Sparsus vel solitarius, ferrugineus vel fulvus. Pileo obtuso-conico, plicato, lævi; membranaceo; stipite tereti, fistuloso, lævi; lamellis subdistantibus, latis, acute-adnatis.

Ad lignum putridum. Bogor. (*Kurz*, 296).

Agaricus (Stropharia) indusiatus, Berk.

Fasciculatus vel gregarius, albus, dein brunnescens, siccitate sordide purpurascens; pileo orbiculari, convexiusculo, adnato-squamuloso, sericeo, carnosulo, in disco membranaceo ($\frac{1}{2}$ - $\frac{3}{4}$ unc. lat.). Stipite tenax, tereti, fistuloso, lævi, fibroso-carnosulo, superne adpressevelato, sub albido (senioribus sæpe annulatis); lamellis lanceolatis, confertissimis, fulvis.

Ad terram argillaceam. Bogor. (*Kurz*, 514).

Agaricus (Stropharia) pseudopsathyra, Berk.

Sparsus vel subgregarius; pileo e convexo suborbiculari-plano, sublævi, sordide albo, in colorem violascentem vergente, carnosulo; stipite sordide albo, fistuloso, tereti, lævi, velato; annulo tenui; lamellis linearibus, confertissimis.

Ad terram argillosam. Bogor. (*Kurz*, 325).

Agaricus (Psathyra) subvinosus, Berk.

Fasciculatus vel gregarius; pileo hemispherico, obtuso, senectate explanato, in statu juniore carnosulo dein submembranaceo, primo molli, subglabro, dein venuloso, albo, ad marginem sordide violaceo, striato; stipite tereti, fistuloso, albo, fibroso-carnosulo; lamellis confertissimis, linearibus, obtuse-adnatis, albidis dein sordide violaceo fuscis.

Ad lignum putridum. Bogor. (*Kurz*, 260).

Hiatula pusilla, Berk.

Gregarius vel sparsus, albus, pellucidus; pileo campanulato, margine deplanato, dein explanato, obsolete plicato, pilis hyalinis sparsis adperso, membranaceo (1-2 mm. diam.). Stipite tereti, fistuloso, lævi; lamellis simplicibus, distantibus, augustissimis, costæformibus, marginem versus sæpissime evanidis.

Ad ramos putridos. Bogor. (*Kurz*, 268).

Marasmius similis, Berk. & Curt.

(*Kurz*, 257.)

Polystictus extensus, Berk.

On dead wood. (*Kurz*, 517.)

Polystictus hirsutus, Fries.

On dead branches. (*Kurz*, 517.)

Laschia tremellosa, Fries.

On wood. (*Kurz*, 519.)

Stereum (Apus) Kurzianum, Cooke.

Submembranaceum, molle, tenue, pileo effuso-reflexoque, minutissime velutino, sæpe subruguloso, cervino (3 unc. et ultra \times 1 unc.). Hymenio glabro, pruinoso, carneo-fusco. Spor. $7 \times 5 \mu$.

On logs. Java. (*Kurz*, 518.)

When dry almost like brown paper. Near *S. bicolor*.

Thelephora anthocephala, *Fr.*

On the ground. (*Kurz*, 527.)

Clavaria fragilis, *Fr.*

On the ground. (*Kurz*, 527.)

Calocera cornea, *Fr.*

On wood. (*Kurz*.)

Cyathus Montagnei, *Tul.*

On chips. (*Kurz*, 521.)

Physarum cinereum, *Fries.*

On leaves, etc. (*Kurz*, 551.)

Stemonitis fusca, *Roth.*

On rotten wood. (*Kurz*, 545, 533.)

Arcyria punicea, *Pers.*

On rotten wood. (*Kurz*, 550.)

Hemiarcyria clavata, *Pers.*

On wood. (*Kurz*, 552.)

Hemiarcyria serpula, *Ditm.*

On chips. (*Kurz*, 540, 539.)

Xylaria ventricosa, *Berk.*

On wood. (*Kurz*, 256.)

Nectria sanguinea, *Fries.*

On branches. (*Kurz*, 553.)

Hypoxylon confluens, *Tode.*

On wood. (*Kurz*, 269.)

Conisphæria palmicola, *Fr.*

On palm petioles. (*Kurz*, 538.)

Peziza (Mollisia) vulgaris, *Fr.*

On branches. (*Kurz*, 258.)

Phoma acmella, *Berk.*

On leaves of *Podocarpus*. (*Kurz*, 549.)

Ceratium hydnoideum, *A. & S.*

On wood. (*Kurz*.)

Pachnocybe subulata, *Berk.*

On wood. (*Kurz*, 323.)

Alternaria pulvinata, *C. & M.*

Grisea, pulvinata (1-1½ mm. diam.). Hyphis erectis, densissime fasciculatis, pulvinulis hemisphærico-depressis efformantibus, conidiis ovoideis, utrinque acuminatis, clathrato-septatis, fuscis, 65-70 × 30-35 μ, demum opacis, isthmis subhyalinis.

On palm trunks. Java. (*Kurz*, 529.)

BRITISH PYRENOMYCETES.

BY G. MASSEE.

*(Continued from p. 42.)*GEN. 5. **ANTHOSTOMELLA.** Sporidia simple, coloured.* EUANTHOSTOMELLA. *Sporidia obtuse.*A. phæosticta, *Berk., Sacc. Syll.* 1034 ; *Hdbk.* 2699.On *Carex pendula*. Batheaston.A. tomicum, *Lev., Sacc. Syll.* 1045 ; *Hdbk.* 2654.On stems of *Juncus*. Spye Park.GEN. 6. **DIDYMOSPHERELLA.** Sporidia uniseptate, coloured.* EUDIDYMA. *Epidermis not blackened.*D. conoidea, *Nsl., Sacc. Syll.* 2644.

On herbaceous stems. Bristol.

D. empetri, *Fries, Sacc. Syll.* 2657.On *Empetrum nigrum*.D. palustris, *B. & Br., Sacc. Syll.* 2674 ; *Hdbk.* 2698.On dead leaves of *Iris*, *Carex*, &c. Spye Park, Wilts, N. Wootton, Batheaston.D. microstictica, *Leight., Sacc. Syll.* 6589 (= *Verrucaria microstictica*, *Leight.*).On *Acaraspora fuscata* and *A. cervina*.** MICROTHELIA. *Epidermis blackened.*D. tenebrosa, *B. & Br., Sacc. Syll.* 2685 ; *Hdbk.* 2679.On *Arctium*. King's Cliffe. Batheaston.GEN. 7. **HEPTAMERIA.** Sporidia multiseptate, coloured.I. LEPTOSPHERIA. *All joints coloured.*A. On *Dicotyledons*.† *Sporidia 2-3 septate.** *Perithecia smooth.*H. doliolum, *Pers., Sacc. Syll.* 2895 ; *Hdbk.* 2710.

On herbaceous stems. Common.

H. conoidea, *Not., Sacc. Syll.* 2896 ; *Hdbk.* 2710 (in part).

On herbs. Weybridge.

- H. Clivensis*, *B. & Br.*, *Sacc. Syll.* 2904 ; *Hdbk.* 2695.
On stems of *Arctium*, *Senecio*, &c. Darent Wood, Kent,
King's Lynn.
- H. nigrella*, *Rab.*, *Sacc. Syll.* 2922 ; *Hdbk.* 2728.
On *Angelica*. Rockhampton, King's Cliffe.
- H. aparines*, *Fckl.*, *Sacc. Syll.* 2926.
On *Galium aparine*. King's Lynn.
- H. glæospora*, *B. & C.*, *Sacc. Syll.* 2941 ; *Hdbk.* 2696.
On *Artemisia absinthium*. Fleetwood.

** *Perithecia* hairy.

- H. echinella*, *Cke.*, *Sacc. Syll.* 3182 ; *Hdbk.* 2723.
On *Atriplex*. Kentish Town, King's Lynn.

†† *Sporidia* 5 septate.

- H. planiuscula*, *B. & Br.*, *Sacc. Syll.* 2966 ; *Hdbk.* 2729.
On *Solidago*. Chiselhurst.
- H. Ogilviensis*, *B. & Br.*, *Sacc. Syll.* 2791 ; *Hdbk.* 2717.
On stems of nettle, ragwort, &c. Shere, Leigh Wood.
- H. maculans*, *Desm.*, *Sacc. Syll.* 2977 ; *Hdbk.* 2687.
On *Sisymbrium*, *Solanum*, &c. Shere, Darent, Terrington.

††† *Sporidia* 6-16 septate.

- H. agnita*, *Desm.*, *Sacc. Syll.* 2996 ; *Hdbk.* 2711.
On *Eupatorium*. Irstead, Shrewsbury.
- H. acuta*, *Mont.*, *Sacc. Syll.* 2997 ; *Hdbk.* 2708 (= *conformis*,
Fr.).
On nettle stems. Common.
- H. derasa*, *B. & Br.*, *Sacc. Syll.* 2998 ; *Hdbk.* 2714.
On *Senecio*, Rosslyn, Shere, Twycross.
- H. pellita*, *Rab.*, *Sacc. Syll.* 2999 ; *Hdbk.* 2709.
On *Atriplex*. King's Lynn.

B. Growing on fruits.

- H. lunariæ*, *B. & Br.*, *Sacc. Syll.* 3508 ; *Hdbk.* 2694.
On dry capsules of *Lunaria rediviva*.

C. On Monocotyledons.

† *Sporidia* 2-4 septate.

- H. Michotii*, *West.*, *Sacc. Syll.* 3066 (= *biseptata*, Awd., &
trimera, Sacc.).
On leaves of grasses and sedges. Lynn, Neatishead, Hants.
- H. personata*, *Nsl.*, *Sacc. Syll.* 3068.
On *Glyceria fluitans*. Lynn.
- H. microscopica*, *K.*, *Sacc. Syll.* 3069.
On *Phragmites communis*. Shere.

- H. marram*, Cke., *Sacc. Syll.* 3070.
On *Ammophila*. Happisburgh.
- H. arundinacea*, Sow., *Sacc. Syll.* 3081 ; *Hdbk.* 2623.
On *Phragmites communis*. Irstead, Lynn, Kew, King's Cliffe.
- H. typharum*, Desm., *Sacc. Syll.* 3086.
On *Typha*. Kew, N. Wootton.
- H. epicarecta*, Cooke, *Sacc. Syll.* 3090.
On *Carex*. Shere.
- H. juncina*, Awd., *Sacc. Syll.* 3094.
On *Juncus*. N. Wootton.
- H. triglochicola*, Curr., *Sacc. Syll.* 3107 ; *Hdbk.* 2721.
On stems and carpels of *Triglochin palustre*. Ringmer, Sussex.

†† *Sporidia* 5 septate.

- H. nigrans*, Desm., *Sacc. Syll.* 3108 ; *Hdbk.* 2716.
On grass leaves. Shere, Neatishead.
- H. culmicola*, Fr., *Sacc. Syll.* 3110.
On grass leaves. Highgate.
- H. nardi*, Fr., *Sacc. Syll.* 3115.
On *Nardus stricta*. Thringstone, N. Wootton.
- H. epicalamia*, Riess., *Sacc. Syll.* 3117.
On *Luzula*, *Triticum*, &c. Shere, Holloway.
- H. maritima*, C. & Pl., *Sacc. Syll.* 3118.
On *Juncus maritimus*. N. Wootton.
- H. Norfolkia*, Cke., *Sacc. Syll.* 3119.
On *Eleocharis* and *Juncus*. Hunstanton, N. Wootton, Tooting.
- H. clara*, Cke., *Sacc. Syll.* 3121.
On glumes of *Festuca*. Sandgate, Neatishead.
- H. vectis*, B. & Br., *Sacc. Syll.* 3123 ; *Hdbk.* 2715.
On *Iris*. Darenth, Newton, Forden.
- H. rusci*, Wallr., *Sacc. Syll.* 3124 ; *Hdbk.* 2762.
On *Ruscus aculeatus*. Kew.

††† *Sporidia* 6-16 septate.

- H. culmifraga*, Fr., *Sacc. Syll.* 3126 ; *Hdbk.* 2624.
On grass stems. Irstead, Highgate, King's Cliffe.
- H. graminis*, Fckl., *Sacc. Syll.* 3131.
On *Phragmites communis*. Terrington.
- H. rubelloides*, Plow., *Sacc. Syll.* 3132.
On *Triticum repens*. King's Lynn.
- H. pontiformis*, Fckl., *Sacc. Syll.* 3136.
On grass. King's Lynn.
- H. duplex*, Sow., *Sacc. Syll.* 3180.
On *Sparganium*.

H. Sowerbyi, *Fckl.*, *Sacc. Syll.* 3139.
On *Scirpus*.

D. On *Acotyledons*.

H. caninæ, *Plow.*, *Sacc. Syll.* 3148.

On *Peltigera*. Dunsley.

H. parmeliarum, *P. & P.*, *Sacc. Syll.* 3158.

On *Parmelia saxatilis*. N. Wales.

H. lemaneæ, *Cohn.* (*fluviatilis*, *P. & P.*), *Sacc. Syll.* 3160.

On *Lemanea*. Longmynd.

III. CLYPEOSPHÆRIA. *Perithecia clypeate. Sporidia triseptate.*

H. hyperici, *Plow.*, *Sacc. Syll.* 3197.

On *Hypericum perforatum*. Castle Rising.

IV. REBENTISCHIA. *Sporidia septate, caudate.*

H. unicaudata, *B. & Br.*, *Sacc. Syll.* 2892 ; *Hdbk.* 2680.

On *Clematis vitalba*. Darenth, Batheaston.

MEMORABILIA.

SPHÆRIA CARYOPHAGA, *Schwein. Amer. Bor.* No. 1594, *Sacc.* No. 4332 ; *Sphæria nuclearia*, *De Not. Micr. Ital.*, ix., p. 462, f. iv. ; *Trematosphæria nuclearia*, *Sacc. Syll.* No. 3308 ; *Sphæria* (*Pertusæ*) *Curtisii*, *Berk. in Curt. Catalogue*, p. 145 (from authentic specimen from Dr. Curtis) ; *Hypoxyylon nucitena*, *B. & C.*, *North Amer. Fungi* No. 844 ; *Melanomma?* *nucitena*, *Sacc. Syll.* No. 3239. From authentic specimens of Schweinitz, Berkeley, and Curtis, and the figure and description by Notaris, we are satisfied that the above are all one species. Sporidia triseptate, two middle cells dark-brown, extreme cells hyaline, $0.15-0.18 \times 0.05$ mm. The colour is often so deep as to mask the central septum, which has caused some discrepancies in the descriptions.

CHROMOSPORIUM ISABELLINUM, *Ellis & Sacc.*, *N. A. Fungi* No. 1391, is the same as *Chromosporium pactolinum*, *Cke. & Hark.*, "Grevillea," ix., 81.

CALOGLOSSA LEPRIEURII, *J. Ag.*—This alga, whose distribution is stated by Agardh to be the warmer Atlantic shores of America, and Australia, and New Zealand, has also been found in the following localities :—Bonin Islands (C. Wright), Kelani River, Ceylon (Fergusson), Mauritius (Col. Pike), and Akassa, West Africa. A variety *subtilissima* also occurs at Calcutta.

SYNOPSIS PYRENOMYCETUM.

(Continued from p. 33.)

GEN. 9. **PLEOSPORA.** Perithecia sparsa, erumpentia, sporidia muriformia.

* EU-PLÆOSPORA. Peritheciis submembranaceis, sporidia colorata.

A. In *Dicotyledoneis*.† *Sporidia 3 septata.*

4988. oligomera, <i>S. & Sp.</i> 3713	4996. labiatarum, <i>C. & Hk.</i> ... 3717
4989. baccata, <i>Ellis</i> ... 7068	
4990. bardanæ, <i>Nsl.</i> ... 3714	4997. papaveracea, <i>Not.</i> 3718
4991. aurea, <i>Ellis</i> ... 7069	4998. permunda, <i>Cke.</i> ... 3719
4992. refracta, <i>K. & C.</i> ... 3715	4999. compressa, <i>Hark.</i> 7072
4993. cheiranthi, <i>Cocc.</i> ... 7070	5000. cassiæ, <i>Ell. & Ev.</i> 7073
4994. asperulæ, <i>Pass.</i> ... 3716	5001. characias, <i>Duby</i>
4995. alpina, <i>Rostr.</i> ... 7071	

†† *Sporidia 5 septata.*

5002. vulgaris, <i>Nsl.</i> ... 3720	5008. mucosa (<i>Fckl. ?</i>) ... 3726
5003. media, <i>Nsl.</i> ... 3721	5009. meliloti, <i>Rab.</i> ... 3727
5004. campanulæ, <i>Pass.</i> 3722	5010. goniolimonis, <i>Pass.</i> 3728
5005. oblongata, <i>Nsl.</i> ... 3723	5011. platyspora, <i>S.</i> ... 3729
5006. liniperda, <i>Thum.</i> ... 3724	5012. patella, <i>Fab.</i> ... 6159
5007. verecunda, <i>Curr.</i> ... 3725	5013. brunnea, <i>Cooke</i> ... 3427

††† *Sporidia 7 septata.*

5014. herbarum, <i>P.</i> ... 3730	5023. albicans, <i>Fckl.</i> ... 3736
5015. pisi, <i>Sow.</i> ... 3731	5024. chlamydospora, <i>Sacc.</i> ... 3737
5016. salsolæ, <i>Fckl.</i> ... 3732	5025. dianthi, <i>Not.</i> ... 3738
5017. arctica, <i>Fckl.</i> ... 7074	5026. vulgatissima, <i>Sp.</i> 3739
5018. excavata, <i>Fr.</i> ... 3733	5027. denotata, <i>C. & E.</i> 3740
5019. tridactylitis, <i>Auers.</i> 3734	5028. lanceolata, <i>K. & C.</i> 3741
5020. sedi, <i>Roum.</i> ... 7075	5029. Pricesiana, <i>Bagn.</i> 3742
5021. anastaticæ, <i>Bagn.</i> 3735	5030. solani-nigri, <i>Roum.</i> 3155
5022. Briardiana, <i>Sacc.</i> 7076	

†††† *Sporidia 8-12 septata.*

5031. dura, <i>Niessl.</i> ... 3743	5035. amplispora, <i>Ell. & Ev.</i> ... 7077
5032. rubicunda, <i>Nsl.</i> ... 3744	5036. verbasci, <i>Rabh.</i> ... 7078
5033. antinoriana, <i>Bagn.</i> 3745	5037. gigaspora, <i>Karst.</i> 7079
5034. anthyllidis, <i>Auers.</i> 3746	

Spor. septorum ignotus.

5038. lusitanica, <i>Pass.</i> ... 3747	5041. plicata, <i>Preuss.</i> ... 3750
5039. herniariæ, <i>Fckl.</i> ... 3748	5042. mendax, <i>Not.</i> ... 6158
5040. australis, <i>Cke.</i> ... 3749	5043. capparidis, <i>Spөг.</i>

B. *Folii-fruticolæ.*

5044. drabæ, *Schrot.* ... 3751 5057. oxyacanthæ, *Pass.* 3774
 5045. pyrenaica, *Nsl.* ... 3752 5058. socia, *Sacc. & Pass.* 3775
 5046. gei-reptantis,
 Carest. ... 3753 5059. aucubæ, *West* ... 3776
 5047. leguminum, *Wallr.* 3754 5060. celtidis, *Cast.* ... 3777
 5048. Clarkeana, *Ell. &*
 Ev. ... 7080 5061. varians, *Ces.* ... 3778
 5049. paronychiæ, *Cooke* 7081 5062. erythrinæ, *Ces.* ... 3779
 5050. cerastii, *Oud.* ... 7082 5063. loculata, *Crie.* ... 3780
 5051. guaranitica, *Speg.* 7083 5064. globularioides, *Cr.* 3781
 5052. abbreviata, *Fckl.* 7084 5065. papillata, *K.* ... 3782
 5053. syringæ, *Fckl.* ... 3770 = *petiolorum*, *Fckl.*
 5054. euonymi, *Fckl.* ... 3771 5066. gymnocladii, *Bagn.* 3783
 5055. frangulæ, *Fckl.* ... 3772 5067. hesperidearum,
 Catt. ... 3784
 5056. grossulariæ, *Fries.* 3773 5068. brachyasca, *Pass.* 7085
 5069. Prostii, *P. & R.*... 7086

C. In *Monocotyledoneis.*† *Sporidia 3 septata.*

5070. leptosphærioides,
 S. & Ther. ... 3786 5076. macrospora, *Schw.* 3792
 5071. Thuemeniana, *S.* 3787 5077. sarcocystis, *B. & C.* 3793
 5072. chamærops, *D. R. &*
 M. ... 3788 5078. typhæ, *Pass.* ... 7500
 5073. culmorum, *Cke.* ... 3789 5079. typhicola, *Cke.* ... 3794
 5074. scirrhoides, *S.* ... 3790 5080. quadrisepitata, *C. &*
 H. ... 7087
 5075. andropogonis, *Nsl.* 3791 5081. calida, *P. & S.* ... 7089

†† *Spor. 5 septata.*

5082. socialis, *Nsl.* ... 3795 5090. deflectens, *K.* ... 3802
 5083. cepæ, *Pr.* ... 3796 5091. hydrophila, *Karst.* 7501
 5084. microspora, *Nsl.*... 3797 5092. pyrenophoroides, *S.* 3803
 5085. infectoria, *Fckl.* ... 3798 5093. vagans, *Nsl.* ... 3804
 5086. spargani, *Cke.* ... 5094. Harknessi, *B. & V.* 7090
 = *straminis*, *C. & H.*
 5087. scirpicola, *D. C.*... 3799 5095. planispora, *Ell.* ... 7091
 5088. pentamera, *K.* ... 3800 5096. junciginea, *Cke.*
 5089. donacina, *Fr.* ... 3801

††† *Spor. 7 septata.*

5097. asparagi, *Rabh.* ... 3805 5106. Karsteni, *B. & V.* 3814
 = *arctica*, *Karst.*
 5098. allii, *Rabh.* ... 3806 5107. septemseptata,
 Auers. ... 3815
 5099. asphodelii, *Rabh.* 3807 5108. punctiformis, *Nsl.* 3816
 5100. rebissia, *Not.* ... 3808 5109. heleocharidis, *K.*... 3817
 5101. agaves, *Not.* ... 3809 5110. subriparia, *Cke.* ... 3818
 5102. phragmospora,
 D. R. & M. ... 3810 5111. spinosella, *Rehm.* 3819
 5103. principis, *Pass.* ... 3811 5112. ovoidea, *Nsl.* ... 7092
 5104. discors, *M.* ... 3812 5113. arctagrostidis, *Oud.* 7093
 5105. abscondita, *S. & R.* 3813

++++ *Spor. 8 pluriseptata.*

- | | |
|---|---|
| 5114. gigantea, <i>M.</i> ... 3820 | 5118. straminis, <i>S.</i> ... 3824 |
| 5115. bambusæ, <i>Pass.</i> ... 3821 | 5119. elynæ, <i>Rabh.</i> ... 3825 |
| 5116. junci, <i>Pass.</i> ... 3822 | 5120. pezizoides, <i>Ces.</i> ... 7088 |
| 5117. heterospora, <i>Not.</i> ... 3823 | 5121. islandica, <i>Johan.</i> ... 7094 |

Septorum ignotæ.

- | | |
|---------------------------------------|---------------------------------------|
| 5122. zelandica, <i>Cke.</i> ... 3826 | 5123. cladiicola, <i>Cr.</i> ... 3827 |
|---------------------------------------|---------------------------------------|

D. In *Acotyledoneis.*

- | | |
|--|--|
| 5124. solorinæ, <i>M.</i> ... 3828 | 5127. muscicola, <i>C. & M., Grev.</i> |
| 5125. pteridis, <i>Rabh.</i> ... 3829 | <i>xvii., 76</i> |
| 5126. engeliana, <i>Saut.</i> ... 7095 | |

E. In *Charta*, etc.

- | | |
|--|--------------------------------------|
| 5128. chartarum, <i>Fckl.</i> ... 3830 | 5130. malacospora, <i>Speg.</i> 3832 |
| 5129. Zimmermani, <i>Roum.</i> 3831 | |

** CATHARINIA. Sporidiis hyalinis.

- | | |
|--|--|
| 5131. hyalospora, <i>Speg.</i> 3833 | 5134. vitrispora, <i>C. & Hk.</i> 3836 |
| 5132. pachyasca, <i>Auers.</i> 3834 | 5135. peltigeræ, <i>Fckl.</i> ... 3837 |
| 5133. pallida, <i>S. & S.</i> ... 3835 | |

* * SCLEROPLEA. Peritheciis sclerotioideis, sporidiis coloratis.

- | | |
|----------------------------------|--|
| 5136. nuda, <i>Cke.</i> ... 3839 | 5137. sclerotioides, <i>Speg.</i> 3840 |
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*** JULELLA. Asci bispori.

- 5137 *bis.* Kellermanni, *Ellis.*

GEN. 10. **PYRENOPHORA**, *Fr.* Perithecia setulosa, sporidia muriformia.

A. EUPYRENOPHORA. Peritheciis sclerotioideis.

- | | |
|--|---------------------------------------|
| 5138. relicina, <i>Fckl.</i> ... 3841 | 5140. phæocomes, <i>Reb.</i> ... 3843 |
| 5139. trichostoma, <i>Fr.</i> ... 3842 | |

Dubia.

5141. inclusa, *Lasch.* ... 3844

B. CHÆTOPLEA. Peritheciis coriaceo-membranaceis.

- | | |
|---------------------------------------|---|
| 5142. calvescens, <i>Fr.</i> ... 3845 | 5148. phæocomoides, |
| 5143. pellita, <i>Fr.</i> ... 3846 | <i>Sacc.</i> ... 3848 |
| 5144. depressa, <i>Peck.</i> ... 7098 | = <i>phæocomes</i> , <i>B. & B.</i> |
| 5145. abscondita, <i>Karst.</i> 7099 | 5149. gracialis, <i>Nsl.</i> ... 7100 |
| 5146. armeriæ, <i>Corda Ic.</i> | 5150. setigera, <i>Nsl.</i> ... 3849 |
| 5147. venturia, <i>Sp.</i> ... 3847 | 5151. phæospora, <i>Dby.</i> ... 3850 |

5152. Venziana, <i>Sacc.</i> ...	3851	5165. chrysospora, <i>Nsl.</i>	3861
5153. penicillus, <i>Schw.</i> ...	3852	5166. rosæ, <i>D. Not.</i> ...	3862
5154. paucitricha, <i>Fckl.</i>	7101	5167. Notarisii, <i>Sacc.</i> ...	3863
5155. nivalis, <i>Nsl.</i> ...	3853	5168. fenestrata, <i>Peck.</i> ...	7103
5156. helvetica, <i>Nsl.</i> ...	3854	5169. comata, <i>Nsl.</i> ...	3864
5157. trichostomella, <i>S.</i>	3855	5170. Wichuriana, <i>Schr.</i>	3865
5158. coronata, <i>Nsl.</i> ...	3856	5171. polyphragmia, <i>S.</i>	3866
5159. minuta, <i>Roum.</i> ...	3040	5172. aparaphysata, <i>Ther.</i>	7104
5160. hispida, <i>Nsl.</i> ...	3857	5173. lanuginosa, <i>S.</i> ...	3867
5161. oligotricha, <i>Nsl.</i> ...	7102	5174. hispidula, <i>Nsl.</i> ...	3868
5162. tragacanthæ, <i>Rab.</i>	3858	5175. parvula, <i>Speg.</i> ...	3869
5163. androsaces, <i>Fckl.</i>	3859	5176. sphagnæceticola,	
5164. ciliata, <i>Ellis</i> ...	3860	<i>Cr.</i> ...	3870

C. CAPRONIA, *Sacc.* Asci 16 spori.

5177. sexdecemspora, *Cke.* 3872

Fam. 16. FOLIICOLÆ. *Fr. S. M.* ii., 513. Perithecia innata, tecta, plerumque foliicola.

GEN. 1. **LÆSTADIA.** Sporidia continua, hyalina.

* GENUINA. Asci *aparaphysati*.

5178. punctoidea, <i>Cke.</i>	1592	5201. auripunctum,	
5179. stigmatodes, <i>B. & C.</i>	... 5999	<i>Hark.</i> ...	6370
5180. alnea, <i>Fr.</i> ...	1593	5202. system-solare, <i>Fckl.</i>	1606
5181. rosæ, <i>Awd.</i> ...	1594	5203. polystigma, <i>Ell. & Ev.</i>	... 6371
5182. Malbrancheana, <i>Sacc.</i>	... 6364	5204. faginea, <i>Cke. & Pl.</i>	6001
5183. cerris, <i>Pass.</i> ...	1595	5205. excentrica, <i>Crie.</i> ...	1607
5184. Cookeana, <i>Awd.</i> ...	1596	5206. buxi, <i>Fckl.</i> ...	6003
5185. radiata, <i>Wallr.</i> ...	1597	5207. buxifolia, <i>Cke.</i> ...	6002
5186. potentillæ, <i>Rostr.</i>	6365	5208. perpusilla, <i>Desm.</i>	1608
5187. Niesslii, <i>Kunze.</i> ...	1598	5209. microspora, <i>Awd.</i>	1609
5188. guarapiensis, <i>Speg.</i>	6366	5210. canificans, <i>Fckl.</i> ...	1610
5189. socia, <i>Penz.</i> ...	1599	5211. rhytismoides,	
5190. veneta, <i>S. & Sp.</i> ...	1600	<i>Berk.</i> ...	1611
5191. pseudoplatani, <i>Pass.</i>	... 7442	5212. microscopica, <i>Nsl.</i>	6373
5192. albocrustata, <i>Schw.</i>	6000	5213. attenuata, <i>Crie.</i> ...	1612
5193. cylindrasca, <i>S. & Sp.</i>	1601	5214. zaviana, <i>S. & B.</i> ...	6374
5194. celata, <i>Hark.</i> ...	6367	5215. angulata, <i>Fckl.</i> ...	1613
5195. contacta, <i>Desm.</i> ...	1602	5216. echinophila, <i>Schw.</i>	1614
5196. orontii, <i>Ell. & Ev.</i>	6368	5217. depressa, <i>Peck.</i> ...	6375
5197. areola, <i>Fckl.</i> ...	1603	5218. cephalariæ, <i>Awd.</i> ...	1615
5198. fusispora, <i>S. & B.</i>	6369	5219. lusitanica, <i>Awd.</i> ...	1616
5199. acerifera, <i>Cke.</i> ...	1604	5220. caryophyllea, <i>C. & Hk.</i>	... 6375
5200. sylvicola, <i>S. & Roum.</i>	... 1605	5221. Marii, <i>De Not.</i> ...	1617
		5222. minutissima, <i>Awd.</i>	1618
		5223. carpinea, <i>Fr.</i> ...	1619

5224. *camilleæ*, *Cooke* ... 6376
 5225. *comedens*, *Schwz.* 2104
 5226. *millepunctata*,
 Desm. ... 1620
 5227. *cinerascens*, *Schwz.* 6005
 5228. *pinastri*, *DC.* ... 1621
 5229. *cooperta*, *Desm.* ... 1622
 5230. *magnoliæ*, *Ellis* ... 6004
 5231. *jasminicola*, *Desm.* 1623
 5232. *bupleuri*, *D. R. & M.* 1624
 5233. *tuscula*, *Pass.* ... 6006
 5234. *fraxinicola*, *C. &*
 Pk. ... 1626
 5235. *melaleucæ*, *Berk.*... 6007
 5236. *minuscule*, *Lev.*... 1627
 5237. *guaranitica*, *Speg.* 6377
 5238. *mappa*, *Berk.* ... 1628
 5239. *nebulosa*, *De Not.* ... 1629

Species dubiæ.

5256. *brunnea*, *B. & C.*... 1636
 5257. *glaucescens*, *Cke.* 1637
 5258. *epilobiana*, *Sacc.*... 1638
 5259. *mali*, *Fckl.* ... 1639
 5260. *comedens*, *Pass.* ... 1640
 5261. *perusta*, *B. & Br.*... 1641
 5262. *caricicola*, *Fckl.* ... 1642
 5263. *cicutæ*, *Kirch.* ... 1643

** PHYSALOSPORA.

5271. *Wrightii*, *B. & C.*... 1661
 5272. *alpina*, *Speg.*, 1664 6385
 5273. *megastoma*, *Peck.* 1669
 5274. *fallaciosa*, *Sacc.* ... 1670
 5275. *citricola*, *Penz.* ... 1671
 5276. *disseminata*, *Sacc.* 1673
 5277. *claræ-bonæ*, *Speg.* 1674
 5278. *hyalospora*, *Ces.*... 1676
 5279. *lathyri*, *D. R. & M.* 1681
 5280. *phomatoides*, *Mont.* 1683
 5281. *protuberans*, *Fckl.* 1684
 5282. *fusispora*, *S. & R.* 6386
 5283. *philoprina*, *B. & C.* 1685
 5284. *consociata*, *Ell. & H.* 1688
 5285. *palustris*, *Mont.* ... 1697

In Monocotyledoneis.

5299. *bambusæ*, *Rab.* ... 1719
 5300. *alpestris*, *Nsl.* ... 1656
 5301. *festucæ*, *Lib.* ... 1657
 5302. *montana*, *S.* ... 1658

5240. *fæniculacea*, *Mont.* 1711
 5241. *foeda*, *Lev.* ... 1630
 5242. *therophila*, *Desm.* 1652
 5243. *rhododendri*,
 De Not. ... 1632
 5244. *rhodoræ*, *Cke.* ... 6378
 5245. *hæmatodes*, *B. & C.* 6427
 5246. *Rouxii*, *Mont.* ... 1633
 5247. *leucothoës*, *Cke.* ... 6009
 5248. *maculiformis*, *Bon.* 1634
 5249. *destructiva*, *B. & Br.* 6379
 5250. *oxalidis*, *Rabh.* ... 1635
 5251. *polygonati*, *Schwz.* 6010
 5252. *asarifolia*, *Cke.* ... 6012
 5253. *paronychiæ*, *Cke.* 6013
 5254. *juniperina*, *Ellis*... 6008
 5255. *polypodii*, *S. & M.* 6380

- Schwz.* ... 6014
 5270. *filicina*, *Winter* ... 7443

Asci paraphysati.

5286. *melaleucæ*, *Lev.* ... 1698
 5287. *cassiæ*, *Lev.* ... 1707
 5288. *sporadina*, *Lev.* ... 1708
 5289. *arthuriana*, *Sacc.* 6017
 5290. *ecastophylli*, *Lev.* 1715
 5291. *nitens*, *Lev.* ... 1716
 5292. *coccodes*, *Lev.* ... 1717
 5293. *labecula*, *Lev.* ... 1723
 5294. *miconiæ*, *Duby.* ... 1724
 5295. *inanis*, *Schwz.* ... 1725
 5296. *bina*, *Hark.* ... 6388
 5297. *quercifolia*, *Ell.*
 & Ev. ... 6389
 5298. *ilicis*, *Schl.* ... 6390

5303. *oxyspora*, *Ell. & S.* 6019
 5304. *paraguaxa*, *Speg.*... 6391
 5305. *tecta*, *Wint.* ... 6392
 5306. *psammœ*, *Oud.* ... 7444

GEN. 2. **SPHÆRELLA.** Sporidia uniseptata, hyalina.A. In *Dicotyledoneis*.† *Arboricolæ*.* *Foliicolæ*.

5307. punctiformis, <i>Pers.</i> 1819	5346. bellona, <i>Sacc.</i> ... 1843
5308. maculiformis, <i>Pers.</i> 1820	5347. pomacearum, <i>Crie.</i> 1844
5309. nigrita, <i>Cke.</i> ... 1821	5348. sentina, <i>Fr.</i> ... 1845
5310. aquatica, <i>Cke.</i> ... 6028	5349. pyri, <i>Awd.</i> ... 1846
5311. oblivia, <i>Cke.</i> ... 1822	5350. septorioides, <i>Desm.</i> 1847
5312. familiaris, <i>Awd.</i> ... 1823	5351. latebrosa, <i>Cke.</i> ... 1848
5313. spleniata, <i>C. & Pk.</i> 1824	5352. pardalota, <i>C. & E.</i> 1849
5314. succinea, (<i>Rob. ?</i>) 6172	5353. parvimacula, <i>Pass.</i> 1850
5315. catesbeyi, <i>Cke.</i> ... 1825	5354. fagi, <i>Awd.</i> ... 1851
5316. simulans, <i>Cke.</i> ... 1826	5355. cratægi, <i>Fckl.</i> ... 1852
5317. Ravenelii, <i>Cke.</i> ... 1827	5356. ligea, <i>Sacc.</i> ... 1853
5318. phellos, <i>Schwz.</i> ... 6029	5357. Winteri, <i>Pass.</i> ... 1854
5319. evansiae, <i>Pat.</i> ... 6413	5358. chamæmori, <i>Karst.</i> 1855
5320. ailanthi, <i>Cke.</i> ... 1828	5359. circumdans, <i>Pass.</i> 1856
5321. æthiops, <i>Fckl.</i> ... 1829	5360. platanifolia, <i>Cke.</i> 6033
5322. harthensls, <i>Awd.</i> ... 1830	5361. gibelliana, <i>Pass.</i> ... 1857
5323. lantanæ, <i>Nits.</i> ... 1831	5362. hesperidum, <i>Penz.</i> 6419
5324. viburni, <i>Nits.</i> ... 1832	5363. sicula, <i>Penz.</i> ... 1858
5325. crepidophora,	5364. arcana, <i>Cke.</i> ... 1859
<i>Mont.</i> ... 1833	5365. millegrana, <i>Cke.</i> ... 1860
= <i>Tini.</i> , <i>Arc.</i> ... 1834	5366. incanescens, <i>Schwz.</i> 6034
5326. topographica,	5367. fennica, <i>Karst.</i> ... 1861
<i>S. & S.</i> ... 1835	5368. sparsa, <i>Wallr.</i> ... 1862
5327. podocarpi, <i>Cke.</i> ... 6030	5369. grossulariæ, <i>Fr.</i> ... 1863
5328. taxi, <i>Cooke</i> ... 1836	5370. assimilata, <i>Kunze.</i> 1864
5329. taxodii, <i>Cke.</i> ... 6031	5371. ribis, <i>Fckl.</i> ... 1865
5330. acicola, <i>C. & H.</i> ... 6414	5372. curva, <i>Karst.</i> ... 6420
5331. pinsapo, <i>Thum.</i> ... 1837	5373. genuflexa, <i>Awd.</i> ... 1866
5332. ligustri, <i>Desm.</i> ... 1838	5374. polaris, <i>Karst.</i> ... 1867
5333. sassafras, <i>Ell. &</i>	5375. mygindæ, <i>Wint.</i> ... 6421
<i>Ev.</i> ... 6416	5376. Capronii, <i>Sacc.</i> ... 1868
5334. laburni, <i>Pass.</i> ... 1839	5377. salicicola, <i>Fr.</i> ... 1869
5335. ilicella, <i>Cke.</i> ... 1840	5378. curvulata, <i>Pass.</i> ... 1870
5336. prini, <i>Cke.</i> ... 6032	5379. maculosa, <i>Sacc.</i> ... 1871
5337. ilicis, <i>Ellis</i> ... 6050	5380. populi, <i>Awd.</i> ... 1872
5338. nyssæcola, <i>Cke.</i> ... 2078	5381. populifolia, <i>Cke.</i> ... 6035
5339. sapindi, <i>Ell. & Ev.</i> 7449	5382. macularis, <i>Fries.</i> 1873
5340. exarida, <i>Wint.</i> ... 6417	5383. crassa, <i>Awd.</i> ... 1874
5341. conferta, <i>Speg.</i> ... 6418	5384. orbicularis, <i>Peck.</i> 1875
5342. melanococca, <i>Lev.</i> 7448	5385. major, <i>Awd.</i> ... 1876
5343. Galouillardii, <i>Sacc.</i> 7450	5386. chauria, <i>Cke.</i> ... 1877
5344. hedericola, <i>Desm.</i> 1841	5387. erysiphoides, <i>Sacc.</i> 6036
5345. pomi, <i>Pass.</i> ... 1842	5388. wisteriæ, <i>Cke.</i> ... 1878

- * *L. dispersa* (*Pers.*), *Nyl.*
- 79 *L. urbana*, *Nyl.*
- 80 *L. livida*, *Ach.*
- 81 *L. subluta*, *Nyl.*
 - f. perspersa*, *Nyl.*
- 82 *L. aipospila* (*Whlnb.*), *Ach.*
 - β. maritima* (*Smmrf.*), *Nyl.*
- 83 *L. poliophæa* (*Whlnb.*), *Ach.*
 - f. spodophæa* (*Whlnb.*), *Nyl.*
- 84 *L. subfusca* (*Ach.*), *Nyl.*
 - β. campestris* (*Schær.*), *Nyl.*
- 85 *L. allophana*, *Ach.*
- 86 *L. epibrya*, *Ach.*
- 87 *L. Parisiensis*, *Nyl.*
- 88 *L. rugosa* (*Pers.*), *Nyl.*
- 89 *L. chlarona* (*Ach.*), *Nyl.*
 - f. pinastri* (*Schær.*)
 - f. gangalea* (*Ach.*), *Nyl.*
 - β. geographica* (*Mass.*), *Nyl.*
- 90 *L. chlarotera*, *Nyl.*
- 91 *L. coilocarpa*, *Ach.*
 - f. pulicaris*, *Ach.*
- 92 *L. atrynea* (*Ach.*), *Nyl.*
 - β. cenisea* (*Ach.*), *Nyl.*
 - γ. melacarpa*, *Nyl.*
- 93 *L. gangeleoides*, *Nyl.*
- * *L. schistina*, *Nyl.*
- 94 *L. intumescens* (*Rebent.*), *Koerb.*
- 95 *L. albella* (*Pers.*), *Ach.*
 - f. 1, peralbella*, *Nyl.*
 - f. 2, subalbella*, *Nyl.*
 - β. chondrotypa* (*Ach.*), *Stiz.*
- 96 *L. angulosa*, *Ach.*
- 97 *L. præpostera*, *Nyl.*
- 98 *L. glaucoma*, *Ach.*
 - f. 1, decussata*, *Cromb.*
 - 2, complanata*, *Leight.*
 - β. inflexa*, *Johns.*
 - γ. Swartzii* (*Ach.*), *Nyl.*
- 99 *L. subcarnea*, *Ach.*
 - β. lecideina* (*Schær.*), *Nyl.*
- 100 *L. umbrina* (*Ach.*), *Nyl.*
 - f. subdistans*, *Nyl.*
 - γ. crenulata* (*Dcks.*), *Nyl.*
- 101 *L. prosechoides*, *Nyl.*
- 102 *L. prosechoidiza*, *Nyl.*
- 103 *L. Hageni* (*Ach.*), *Nyl.*
 - f. calcigena*, *Nyl.*

- 104 *L. conferta* (*Dub.*), *Nyl.*
 105 *L. Aghardiana*, *Ach.*
 106 *L. fuscescens* (*Smmrf.*), *Nyl.*
 107? *L. mammillifera*, *Stirt.*
 108 *L. sulfurea* (*Hffm.*), *Ach.*
 109 *L. epanora*, *Ach.*
 110 *L. orosthea*, *Ach.*
 β. sublivescens, *Nyl.*
 111 *L. varia* (*Ehrh.*), *Ach.*
 f. pleorytis, *Ach.*
 112 *L. conizæa* (*Ach.*), *Nyl.*
 113 *L. conizæoides*, *Nyl.*
 114 *L. expallens*, *Ach.*
 β. smaragdocarpa, *Nyl.*
 γ. lutescens (*D. C.*), *Nyl.*
 * *L. inversa*, *Nyl.*
 115 *L. symmicta* (*Ach.*), *Nyl.*
 β. sepincola (*Ach.*), *Nyl.*
 116 *L. symmictera*, *Nyl.*
 β. aitema, *Ach.*
 f. depauperata, *Cromb.*
 117 *L. piniperda*, *Krb.*
 β. ochrostoma, *Krb.*
 118 *L. metaboloides*, *Nyl.*
 f. obscurior, *Cromb.*
 119 *L. polytropa*, *Ehrh.*
 f. efflorescens, *Cromb.*
 f. alpigena, *Ach.*
 f. conglobata, *Fr.*
 * *L. intricata*, *Schrad.*
 β. leptacina, *Smmrf.*
 120 *L. stenotropa*, *Nyl.*
 121 *L. subintricata*, *Nyl.*
 122 *L. sarcopis*, *Whlnb.*
 123 *L. effusa*, *Pers.*
 124 *L. argopholis* (*Whlnb.*), *Ach.*
 125 *L. frustulosa* (*Dcks.*), *Ach.*
 126 *L. chlorophæodes*, *Nyl.*
 f. Stirps, *L. erysibes*, *Ach.*
 127 *L. erysibe* (*Ach.*), *Nyl.*
 f. cinereo fusca, *Mudd.*
 β. sincerior, *Nyl.*
 * *L. albariella*, *Nyl.*
 β. lactea, *Mass.*
 128 *L. phæoleucodes*, *Nyl.*
 129 *L. Hutchinsia*, *Nyl.*
 β. accessitans, *Nyl.*

- γ. congregabilis, *Nyl.*
 130 *L. umbraticula*, *Nyl.*
 131 *L. spodophæiza*, *Nyl.*
 132 *L. actæa*, *Nyl.*
 133 *L. dimera*, *Nyl.*
 134 *L. sambuci* (*Pers.*), *Nyl.*
 135 *L. syringeæ*, *Ach.*
 * *L. athroocarpa.*
 β. cærulescens, *Mudd.*
 γ. metabolica, *Ach.*
 136 *L. rhypariza*, *Nyl.*
 f. curvescens (*Mudd.*), *Nyl.*
 g. Stirps, *L. atræ*, *Ach.*
 137 *L. atra* (*Huds.*), *Ach.*
 ? β. subbyssoides, *Stirt.*
 h. Stirps, *L. badiæ*, *Ach.*
 138 *L. badia*, *Ach.*
 β. cinerascens, *Nyl.*
 * *L. picea* (*Dcks.*), *Nyl.*
 139 *L. nitens* (*Flk.*), *Nyl.*
 140 *L. austera*, *Nyl.*
 141 *L. atriseda* *Fr.*
 142 *L. torquata.*
 i. Stirps, *L. coccinei*, *Dcks.*
 143 *L. coccinea*, *Dcks.*
 β. saxetana, *Ach.*
 144 *L. elatina*, *Ach.*
 k. Stirps, *L. ventosæ*, *Ach.*
 145 *L. ventosa*, *Ach.*
 β. subfestiva, *Nyl.*
 l. Stirps, *L. tartareæ.*
 146 *L. tartarea* (*L.*), *Ach.*
 f. grandinosa (*Ach.*), *Fr. fil.*
 β. frigida (*Sw.*), *Ach.*
 f. microcarpa, *Fr. fil.*
 γ. gonatodes, *Ach.*
 * *L. subtartarea*, *Nyl.*
 f. leprosa, *Nyl.*
 147 *L. pallescens* (*Ach.*), *Nyl.*
 148 *L. parella* (*L.*), *Ach.*
 f. 1, crenularia, *Cromb.*
 f. 2, tumidula (*Pers.*), *Ach.*
 β. Turneri (*Sm.*), *Nyl.*
 f. subcrenata, *Cromb.*
 149 *L. upsaliensis* (*L.*), *Nyl.*
 150 *L. geminipara*, *Fr. fil.*

(To be continued.)

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A QUARTERLY RECORD OF CRYPTOGAMIC BOTANY
AND ITS LITERATURE.

NEW BRITISH FUNGI.

(Continued from p. 54.)

Agaricus (Flammula) purpuratus, Cooke & Mass.

Pileus rather fleshy, convex, then expanded, obtusely umbonate (1-2 in. diam.), purple or purple-brown, clad with minute floccose scales of the same colour. Stem curved, ascending, equal (1-2 in. long, 2-3 lines thick), smooth and pallid above, purple below and granulose, solid, flesh pale-yellowish above, purplish below, ring fibrillose; gills adnate, somewhat rounded behind, not crowded, lemon-yellow, at length bright ferruginous ($8 \times 5 \mu$). Taste very bitter.—*Cooke Illus. Supp. t. 964.*

On tree fern stems. Kew Gardens.

Cyphella cernua, Schum. Flor. Sælland. p. 421.

Minute, scattered, whitish, pallid, cyathiform, nodding, margin quite entire, or more often laciniate, teeth unequal, and somewhat turned in. Stem rather short, thin, dilated at the apex, diaphanous, when old umber at the base.—*Fl. Dan. t. 1970, f. 3.*

On elder bark. Ayrshire. (D. A. Boyd.)

Fries evidently considers this a variety of *Cyphella capula*, Fr. Spores $10 \times 8 \mu$.

Peziza leucomelas, P. Grev. xvii., 44.

This has occurred also at Norwood.

Phoma nepenthis, Cke. & Mass.

Perithecia scattered, immersed, black, membranaceous, perforate. Sporules elliptical, binucleate, hyaline, $7 \times 3\frac{1}{2} \mu$; on short sporophores.

On dead pitchers of *Nepenthes*. Readlands, Glasgow. (D. A. Boyd.)

Cytispora taxifoliæ, Cke. & Mass.

Stromatibus sparis, globoso-conicis, lævibus, nigris, erumpentibus, intus 3-4 loculatis, sphaeriæformibus, ostiolo conico, basidiis minutis; sporulis allantoideis, minutis, hyalinis, $3 \times 1 u$.

In foliis *Taxi*. Near Carlisle.

Hendersonia hapalocystis, Cooke.

Perithecia scattered, immersed, scarcely visible except by cutting away the wood. Spores large, $45-50 \times 18 \mu$, four-celled, the two median cells large, subglobose, flattened at the junction, dark brown, nearly black, ultimate cells small, hyaline, almost like an apiculus at each end.

On decorticated twigs of ash, etc. Near Bristol.

Heterosporium algarum, Cke. & Mass.

Fully matured specimens prove that the conidia of *Cladosporium algarum*, C. & M., "Grevillea," xvi., 81, are echinulate, and hence *Heterosporium*.

On *Laminaria*. West Kilbride, N.B.

Glæosporium cinctum, B. & C. Sacc. Syll. 3765.

On leaves of orchids in conservatory. Glasgow. (D. A. Boyd.)

Apparently *Glæosporium affine*, Sacc. Syll. 3707, is the same species.

Glæosporium elasticum, Cke. & Mass.

Pustules minute, scattered, turning black, chiefly on the upper surface; conidia oozing out when moist, elliptical, or elongated elliptical, rounded at the ends, hyaline, granular, sometimes nucleate, $12-20 \times 5 \mu$.

On dead leaves of *Ficus elastica*. Botanic Garden, Glasgow. (D. A. Boyd.)

Volutella citrina, Cke. & Mass.

Erumpent, scattered, discoid, lemon-yellow ($\frac{1}{3}$ mm. diam.), sessile, resembling a minute *Peziza*, circumscribed by dense slender hyaline setæ, which are flexuous, smooth, and septate. Conidia oblong, $3-4 \times 1\frac{1}{2} \mu$.

On stalks of *Trollius*. West Kilbride, Ayrshire. (D. A. Boyd.)

Diaporthe (Euporthe) ilicina, Cooke Fungi Britt. 490.

Stromate ramulos cortice relaxato, in ligni superficie nigricante limitato, peridermio decolorato; lineo nigro circumscripto; peritheciis globulosis, singulis vel gregariis, ostiolo leniter emergente, ascis subfusoides; sporidiis lanceolatis, quadrinucleatis, dein uniseptatis, $16-18 \times 3 \mu$.

On *Ilex aquifolius*.

Physalospora Thistletonia, Cooke.

Epiphyllous. Spots large, irregular, pallid, with a roseate border. Perithecia scattered over the spots, depressedly globose, black, covered by the cuticle; asci clavate. Sporidia biseriate, subanceolate, continuous, hyaline, with 3-5 nuclei, $22 \times 7 \mu$.

On fading leaves of *Rhododendron*.

Lophiostoma (Lophiotrema) hysterioides, Currey in Herb.

Peritheciis gregariis, semiemersis, atris, subglobosis, lateraliter compressis, ostiolo lineari. Ascis clavatis, octosporis. Sporidiis fusiformibus, primum 1-septatis, nucleatis, demum, 3-5 septatis, hyalinis, vix constrictis (0.3×0.05 mm.).

On rotten wood. Chislehurst, England.

SYNOPSIS PYRENOMYCETUM.

By M. C. COOKE.

(Continued from p. 67).

- | | | | |
|--------------------------------------|----------|-----------------------------------|----------|
| 5458. Weinmanniæ, <i>Cke.</i> | 7453 | 5463. pandurata, <i>Ell.</i> & | |
| 5459. atra, <i>Lev.</i> | ... 1921 | <i>Ev.</i> | ... 6432 |
| 5460. cassinopsidis, <i>K. &</i> | | 5464. Banksiæ, <i>C. & M.</i> | |
| <i>C.</i> ... | ... 1922 | 5465. fraxini, <i>Nsl.</i> | |
| 5461. coffeicola, <i>Cke.</i> | ... 1923 | 5466. alyxiæ, <i>C. & M.</i> | |
| 5462. gordoniæ, <i>Cke.</i> | ... 6052 | 5467. bracteophila, <i>Pass.</i> | |

** *Clado-carpogenæ.*

- | | | | |
|-----------------------------------|----------|-------------------------------|-----------|
| 5468. melanophora, <i>Speg.</i> | 1924 | 5474. leguminis-cytisi, | |
| 5469. fumaginea, <i>Catt.</i> | 1925 | <i>Desm.</i> | ... 1929 |
| 5470. hæmatites, <i>Rob.</i> | ... 2159 | 5475. conigena, <i>Peck.</i> | |
| 5471. cytisi-saggitalis, | | | 6415 6433 |
| <i>Awd.</i> | ... 1926 | 5476. sordidula, <i>Speg.</i> | ... 6434 |
| 5472. inflata, <i>Penz.</i> | ... 1927 | 5477. polyspora, <i>Joh.</i> | ... 6459 |
| 5473. inconspicua, <i>Schrot.</i> | 1928 | | |

† *Herbicolæ.** *Foliicolæ.*

- | | | | |
|--|----------|-------------------------------------|----------|
| 5478. fusispora, <i>Fckl.</i> | ... 6435 | 5499. adusta, <i>Fckl.</i> | ... 6440 |
| 5479. pulsatillæ, <i>Lasch.</i> | 1930 | 5500. epilobii, <i>Crie.</i> | ... 1943 |
| 5480. hellebori, <i>Roum.</i> | | 5501. œnotheræ, <i>Ell. &</i> | |
| <i>Fl. Gall</i> | 1710 | <i>Ev.</i> | ... 6450 |
| 5481. nivalis, <i>Oud.</i> | ... 6436 | 5502. hypericina, <i>Ellis</i> | 6057 |
| 5482. lachesis, <i>Sacc.</i> | ... 1931 | 5503. intermixta, <i>Nsl.</i> | ... 6054 |
| 5483. thalictri, <i>Ell. & Ev.</i> | 6437 | 5504. tingens, <i>Nsl.</i> | ... 6059 |
| 5484. hermione, <i>Sacc.</i> | ... 1932 | 5505. desmodii, <i>Wint.</i> | ... 6441 |
| 5485. epimedii, <i>Sacc.</i> | ... 1933 | 5506. Linhartiana, <i>Nsl.</i> | 6442 |
| 5486. papaveris, <i>Fckl.</i> | ... 6458 | 5507. vulnerariæ, <i>Fckl.</i> | 1944 |
| 5487. adonis, <i>Sacc.</i> | ... 1934 | 5508. consociata, <i>Rehm.</i> | 6443 |
| 5488. nubigena, <i>Speg.</i> | ... 6056 | 5509. phaseolicola, <i>Desm.</i> | 1945 |
| 5489. umbrosa, <i>Sacc.</i> | ... 1935 | 5510. Morierei, <i>Crie.</i> | ... 1946 |
| 5490. macowaniana, | | 5511. nemorosa, <i>S. & Sp.</i> | 1947 |
| <i>Wint.</i> | ... 6438 | 5512. nerviseda, <i>Speg.</i> | ... 1948 |
| 5491. pedicularis, <i>Karst.</i> | 1936 | 5513. ariadna, <i>Sacc.</i> | ... 1949 |
| 5492. pyrenaica, <i>Speg.</i> | ... 6057 | 5514. potentillæ, <i>Oud.</i> | ... 6444 |
| 5493. impatientis, <i>P. & Cl.</i> | 1937 | 5515. geicola, <i>K. & C.</i> | ... 1950 |
| 5494. carniolica, <i>Nsl.</i> | ... 1938 | 5516. fragariæ, <i>Tul.</i> | ... 1951 |
| 5495. brassicicola, <i>Duby.</i> | 1939 | 5517. earliana, <i>Wint.</i> | ... 6445 |
| = <i>armoraciæ</i> , <i>Fckl.</i> | | 5518. dejanira, <i>Sacc.</i> | ... 1952 |
| 5496. sylvatica, <i>S. & Sp.</i> | 1940 | 5519. maculans, <i>S. & R.</i> | 1953 |
| 5497. sarraceniciæ, <i>Schuz.</i> | 1941 | 5520. ootheca, <i>Sacc.</i> | ... 1954 |
| 5498. microspila, <i>B. & Br.</i> | 1942 | 5521. dryadis, <i>Awd.</i> | ... 1955 |

5522. octopetalæ, *Oud.*... 6446
 5523. Biberwierensis, *Awd.* 1956
 5524. innumerella, *Karst.* 1957
 5525. melanoplaca, *Desm.* 1958
 5526. pseudo-maculifor-
 mis, *Desm.* ... 1950
 5527. jurinæ, *Fckl.* ... 1961
 5528. eriophila, *Nsl.* ... 1962
 5529. confinis, *Karst.* ... 1967
 5530. maculicola, *Wint.* 6449
 5531. pieris, *Sacc.* ... 1963
 5532. tussilaginis, *Rehm.* 1964
 5533. arnicæ, *Speg.* ... 1965
 5534. hieracii, *Cke.*
 5535. carlinæ, *Wint.* ... 1966
 5536. affinis, *Wint.* ... 1967
 5537. sarracenica, *S. & R.* 1968
 5538. majuscula, *Cke.* ... 6055
 5539. taraxaci, *Karst.* ... 1969
 5540. sibirica, *Thum.* ... 1970
 5541. leucophæa, *Ell. &*
 Kell 6451
 5542. smegmatus, *Pass.* 1971
 5543. tingens, *Nsl.*
 5544. isariphora, *Desm.* 1972
 5545. subnivalis, *Rehm.* 6449

5546. venziana, *Sacc.* ... 1973
 5547. densa, *Rostr.* ... 6439
 5548. stellarinearum,
 Rabh. 1974
 5549. pulviscula, *Cocc.*... 6448
 5550. erysiphina, *B. & Br.* 1975
 5551. eryngii, *Wallr.* ... 1976
 5552. brionnensis, *S. & M.* 6457
 5553. primulæ, *Awd.* ... 1977
 5554. mariæ, *Sacc. &*
 Boum. 7454
 5555. Harknessi, *Sacc.*... 1978
 =*brachytheca*, *C. &*
 Hk.
 5556. adusta, *Nsl.* ... 1979
 5557. rumicis, *Desm.* ... 1980
 5558. rhei, *Roum.*
 5559. eucarpa, *Karst.* ... 1981
 5560. polygonorum, *Crie.* 1982
 5561. circe, *Sacc.* ... 1983
 5562. depazeæformis,
 Awd. 1984
 5563. oxalidis, *Kirsch.* ... 1635
 5564. selene, *Sacc.* ... 1985
 5565. panacis, *Cke.* ... 6053
 5566. aristotelis, *Cke.*... 7457

** *Clado-carpogenæ.*

5567. baptisiæcola, *Cke.*
 6060 6455
 5568. granulata, *Ell. &*
 Ev. 7455
 5569. melaena, *Pr.* ... 1986
 5570. plantaginis, *Sollm.* 1987
 5571. circumvaga, *Desm.* 1988
 5572. pinodes, *B. & Br.*... 1989
 5573. vesicaria, *Pass.* ... 6452
 5574. trifolii, *Karst.* ... 1990
 5575. calycicola, *Pass.*... 6453
 5576. astragali, *Curr.* ... 6061
 5577. lathyrina, *B. & C.*
 5578. spinarum, *Awd.* ... 1991
 5579. Passeriniana, *Sacc.* 6062
 5580. cruciferarum, *Fr.* 1992
 5581. aliena, *Pass.* ... 6063
 5582. compositarum,
 Awd. 1993
 5583. xanthicola, *C. & H.* 6454
 5584. præcox, *Pass.* ... 1994
 5585. dahliæ, *C. & Ell.* 1995
5586. nebulosa, *Pers.* ... 1996
 5587. trichophila, *Karst.* 1997
 5588. Winteriana, *Sacc.* 1998
 5589. pachypleuri, *Fckl.* 6456
 5590. vincetoxici, *Sacc.* 1999
 5591. gypsophilæ, *Fckl.* 2000
 5592. euphorbiæ-spinosæ,
 Not. 2001
 5593. salicorniæ, *Awd.* ... 2002
 5594. peruviana, *Sp.* ... 2003
 5595. fuscata, *Ell.* ... 2004
 5596. sagedioides, *Wint.* 2005
 5597. umbelliferarum,
 Awd. 2006
 5598. leptasca, *Awd.* ... 2007
 5599. sciadophila, *Pass.* 2008
 5600. rubella, *Nsl.* ... 2009
 5601. Mougeotiana, *Sacc.* 2010
 5602. peregrina, *Cke.* ... 2011
 5603. minor, *Karst.* ... 2012
 5604. hyperici, *Awd.* ... 2013
 5605. gentianæ, *Nsl.* ... 2014

5606. *campanulæ*, *E. & K.*
 5607. *galatea*, *Sacc.* ... 2015
 5608. *morphæa*, *Sacc.* ... 2016
 5609. *arthropyrenioides*,
Awd. ... 2017
 5610. *cannabis*, *Wint.* ... 2018
 5611. *caulicola*, *Karst.* ... 2019
 5612. *micromeriæ*, *Pass.* 2020
 5613. *polygramma*, *Fr.* 2021
 5614. *nigrita*, *Grog. F.*
Gall. 1606
 5615. *aristolochiæ*, *Roum.* 1601

B. In *Monocotyledoneis*.

5616. *schœnoprasi*, *Awd.* 2022
 5617. *allicina*, *Fr.* ... 2023
 5618. *cinxia*, *Sacc.* ... 2024
 5619. *maturna*, *Sacc.* ... 2025
 5620. *brunneola*, *Fr.* ... 2026
 5621. *asteroma*, *Fr.* ... 2027
 5622. *smilacicola*, *Schwz.* 2028
 5623. *subcongregata*, *Ell.*
& Ev. ... 7458
 5624. *pales*, *Sacc.* ... 2029
 5625. *agapanthi*, *K. & C.* 2030
 5626. *iridis*, *Awd.* ... 2031
 5627. *minimæpuncta*,
Cke. ... 6064
 5628. *caladii*, *Schwz.* ... 2032
 5629. *orchidearum*, *Karst.* 6462
 5630. *maydis*, *Pass.* ... 2033
 5631. *paulula*, *Cke.* ... 2034
 5632. *zeæ*, *Schwz.* ... 2035
 5633. *parallelogramma*,
Rehm. ... 6461
 5634. *disseminata*. *Not.*
2036 6068
 5635. *chlouna*, *Cke.* ... 2037
 5636. *californica*, *C. & H.* 6065
 5637. *ceres*, *Sacc.* ... 2038
 5638. *bacillifera*, *Karst.* 6463
 5639. *anarithma*, *B. & Br.* 2039
 5640. *philochorta*, *Cke.* 6066
 5641. *epistroma*, *Cke.* ... 6067
 5642. *badensis*, *Nsl.* ... 2040
 5643. *agrostidis*, *Cast.* ... 2041
 5644. *junciginea*, *Cke.*
 5645. *phœnicis*, *Ces.*
 5646. *Malinverniana*,
Catt. ... 2043
 5647. *phyllachoroides*,
Sacc. ... 2045
 5648. *leptopleura*, *Not.* 2046
 5649. *ignobilis*, *Awd.* ... 2047
 5650. *exitialis*, *Mori.* ... 6465
 5651. *muhlenbergiæ*,
Ellis ... 6069
 5652. *graminicola*, *Fckl.* 2048
 5653. *perexigua*, *Karst.* 2049
 5654. *najas*, *Sacc.* ... 2050
 5655. *longissima*, *Fckl.* 2051
 5656. *luzulæ*, *Cke.* ... 2052
 5657. *præparva*, *Pass.* ... 6070
 5658. *depressa*, *Sacc.* ... 1709
 5659. *scirpi-lacustris*,
Awd. ... 2053
 5660. *thais*, *Sacc.* ... 2054
 5661. *pusilla*, *Awd.* ... 2055
 5662. *saxatilis*, *Schrot.* ... 2056
 5663. *caricicola*, *Fckl.* ... 1642
 5664. *Wichuriana*, *Schrot.* 2057
 5665. *tassiana*, *Not.* ... 2058
 5666. *lineolata*, *Desm.* ... 2059
 5667. *typhæ*, *Lasch.* ... 2060
 5668. *incisa*, *Ell. & M.* ... 6460
 5669. *gastonis*, *Sacc.* ... 6467
 5670. *sabaligena*, *Ell. &*
Ev. ... 7456
 5671. *intercellularis*, *B. &*
C. ... 2183
 5672. *lamprocarpi*, *Pass.*
 5673. *zizaniæ*, *Schwz.* 4411

C. In *Acotyledoneis*.

5674. *pteridis*, *Desm.* ... 2061
 5675. *indistincta*, *Peck.* 2062
 5676. *aquilina*, *Fr.* ... 2063
 5677. *prominula*, *Speg.* ... 2064
 5678. *filicum*, *Desm.* ... 2065
 5679. *tyrolensis*, *Awd.* ... 2066
 5680. *asplenii*, *Awd.* ... 2067
 5681. *lycopodina*, *Karst.* 2068
 5682. *equiseti*, *Fckl.* ... 2069
 5683. *trichomanis*, *Cke.* 6468
 5684. *parasitica*, *Wint.* 6469

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|----------------------------------|------|---|------|
| 5752. borealis, <i>Sacc.</i> ... | 2236 | 5759. verrucariæformis, | |
| 5753. frigida, <i>Sacc.</i> ... | 2237 | <i>Fckl.</i> ... | 2243 |
| 5754. thallophila, <i>Cooke</i> | 2238 | 5760. ulothii, <i>Korb. Kunze. Exs.</i> | |
| 5755. hageniæ, <i>Rehm.</i> ... | 2239 | 78 | |
| 5756. lichenicola, <i>Mass.</i> | 2240 | 5761. balani, <i>Winter</i> | |
| 5757. psoromatis, <i>Mass.</i> | 2241 | 5762. psoræ, <i>Anzi. Anal.</i> p. 27 | |
| 5758. massariæ, <i>Pass.</i> ... | 2242 | 5763. Winteri, <i>Kunze Exs. No.</i> | 65. |

GEN. 3. **SPHÆRULINA.** Sporidia 3-pleuriseptata.

* EU-SPHÆRULINA. *Asci aparaphysati, sporidia septata, hyalina.*

- | | | | |
|--------------------------------------|------|------------------------------------|------|
| 5764. myriadea, <i>D. C.</i> ... | 3524 | 5772. sambucina, <i>Peck.</i> | 7044 |
| 5765. serograpta, <i>D. R.</i> | | 5773. potentillæ, <i>Rostr.</i> | 7046 |
| & <i>M.</i> ... | 3525 | 5774. subglacialis, <i>Rehm.</i> | 7047 |
| 5766. fraxinea, <i>S. & S.</i> | 3526 | 5775. Boudieriana, <i>S. &</i> | |
| 5767. umbilicata, <i>S. & M.</i> | 3527 | <i>M.</i> ... | 7048 |
| 5768. Leightoni, <i>Berk.</i> ... | 3532 | 5776. caricis, <i>Pat.</i> ... | 7049 |
| 5769. vaginæ, <i>Lasch.</i> ... | 1647 | 5777. assurgens, <i>Cke.</i> ... | 7494 |
| 5770. islandica, <i>Rostr.</i> ... | 7043 | 5778. todeæ, <i>Cke.</i> ... | 7045 |
| 5771. cryptospila, <i>B.</i> | | 5779. acetabulum, <i>B.</i> ... | 1625 |

** METASPHÆRIA. *Asci paraphysati.*

† Sporidia 2-4 septata.

- | | | | |
|-------------------------------------|------|-----------------------------------|------|
| 5780. papulosa, <i>D. R. &</i> | | 5789. empetri, <i>Fr.</i> ... | 3463 |
| <i>M.</i> ... | 3453 | 5790. vincæ, <i>Fr.</i> ... | 3464 |
| 5781. helicicola, <i>Desm.</i> ... | 3454 | 5791. hederæfolia, <i>Cke.</i> | 6148 |
| 5782. hederæ, <i>Sow.</i> ... | 3455 | 5792. xerophylli, <i>Ell.</i> ... | 6149 |
| 5783. nobilis, <i>Sacc.</i> ... | 3456 | 5793. Lieuryana, <i>Mall.</i> | 7034 |
| 5784. immunda, <i>K.</i> ... | 3457 | 5794. molleriana, <i>Nsl.</i> ... | 7035 |
| 5785. acerum, <i>Crie.</i> ... | 3458 | 5795. caraquata, <i>Speg.</i> ... | 7036 |
| 5786. acuum, <i>C. & E.</i> ... | 3459 | 5796. cerabidis, <i>Joh.</i> ... | 7037 |
| 5787. palustris, <i>M.</i> ... | 3461 | 5797. nervisequia, <i>Wint.</i> | 7039 |
| 5788. cynaraceum, <i>Nsl.</i> | 3462 | | |

†† Sporidia 5-pleuriseptata.

- | | | | |
|----------------------------------|------|--------------------------------|------|
| 5798. pachyasca, <i>Nsl.</i> ... | 3465 | 5799. Peckii, <i>Speg.</i> ... | 3466 |
|----------------------------------|------|--------------------------------|------|

* * LEPTOSPHÆRELLA. *Asci paraphysati, sporidia septata, leniter colorata.*

† Sporidia 2-4 septata.

- | | | | |
|-------------------------------------|------|----------------------------------|------|
| 5800. uliginosa, <i>P. & P.</i> | 3020 | 5806. aglaia, <i>S.</i> ... | 3026 |
| 5801. silenes-acaules, <i>Not.</i> | 3021 | 5807. austro-americana, | |
| 5802. Hausmanniana, | | <i>Sp.</i> ... | 3027 |
| <i>Awd.</i> ... | 3022 | 5808. Plemeliana, <i>N.</i> ... | 3028 |
| 5803. sabauda, <i>Speg.</i> ... | 3023 | 5809. primulæcola, <i>Wint.</i> | 3029 |
| 5804. minima, <i>Duby.</i> ... | 3024 | 5810. subtecta, <i>Wint.</i> ... | 3030 |
| 5805. lathonia, <i>S.</i> ... | 3025 | 5811. andromedæ, <i>Awd.</i> | 3031 |

Asterina (Asterella) Alsophilæ, Cke. & Mass.

Perithecia membranaceous, discoid, suborbicular, mostly confluent in oblong or irregular patches, pitchy-black, cellules radiating, mostly dentate at the margin. Asci pear-shaped, or shortly clavate, octosporous. Sporidia elliptical, uniseptate, unequal, the lower cell double the length of the upper, and a little attenuated, $9-10 \times 4-5 \mu$ hyaline.

On *Alsophila rebeccæ*. N.E. Queensland. (Baron Muller.)

Phacidium (Fabræa) rhytismoideum, Cke. & Mass.

Cups clustered together upon a kind of pseudo-stroma in the centre of the leaves, usually 6 to 8, minute, externally dark brown, disc pallid, cinereous, closing in drying, and wholly becoming pitchy brown, nearly black, and then resembling a *Rhytisma*. Asci clavate with numerous paraphyses. Sporidia cylindrical, obtuse at the ends, uniseptate, hyaline, $16-18 \times 3-4 \mu$.

On living leaves of *Cotula*. Macedon. (Mrs. Martin.)

WOOLHOPE CLUB TRANSACTIONS.

The ninth volume of these Transactions has just been issued, including the years 1883-4-5, and although some of the papers seem now to be matters of ancient history, the volume is welcome, not least for the excellent photograph of the late Dr. H. G. Bull. The heavy cost of the publication of the "Pomona" caused the Transactions to be set aside from year to year, but now that the "Herefordshire Flora" is issued, it is to be hoped that the succeeding three years—1886-7-8—will soon make an appearance, and then the arrears will be fairly disposed of. Criticism of the papers in the present volume is out of the question, but it may be well to name the titles of the principal communications which come within the province of this journal. "The Salmon Disease," by H. C. Moore; "On some Species of *Tricholoma* not easily distinguished from each other," by Canon Du Port; "On the colours of Fungi as indicated by the Latin words used by Fries," by Canon Du Port; "Mr. Jensen and the Potato Disease," "Wheat Mildew Legislation," and "Heteræcismal Fungi," by C. B. Plowright; "On Alkaloids, &c., extracted from Fungi," by C. G. Stewart; "The *Chroolepus Iolithus*," by Edwin Lees; "Notes on the Edible Fungi of Italy," by A. S. Bicknell; "On Fries's Nomenclature of Colours," by H. T. Wharton; "British species of *Nidularia*," by W. Phillips; "Researches into the Oospores of some Fungi," by J. E. Vize; "Gigantic Fungi," by M. C. Cooke; "The Genus *Pestalozzia*," by J. E. Vize; "The Vegetable Caterpillar," by Dr. Bull; the whole concluding with a neat "In Memoriam" dedicated to the "father of the Woolhope Club." We congratulate the present editor, Mr. H. Cecil Moore, on the energy with which he is pushing forward the publication of the back Transactions, and the care with which he supervises their production.

BRITISH DISCOMYCETES.

Notes and Additions No. 2.

BY WILLIAM PHILLIPS, F.L.S.

***Peziza perlata*, Fr.**

Cups large, shortly stipitate, at first subglobose, then expanded, undulate, splitting at the margin; externally white, even; hymenium wrinkled, pale cinnamon; stem stout, lacunose, white; flesh thick; asci cylindraceo-clavate, attenuated below the sporidia, truncate at the summit; sporidia 8, elliptic, pale brown, smooth, $15-20 \times 10-12 \mu$; paraphyses numerous, rather stout, septate, guttulate, broadly clavate at the summit, brown.

Peziza perlata, Fries Sys. Myc. ii., 43; Karst. Myco. Fenn. p. 39; Cooke Myco. fig. 239. *Discina perlata*, Fries, Sverige Svampar, t. 56.

Exs. Karst. Fung. Fenn. 531.

On burnt charcoal beds.

Cups $2\frac{1}{2}$ in. broad before expanding, $3\frac{1}{2}$ in., or even more, when expanded. Stem $\frac{1}{2}$ in. long, $\frac{3}{4}$ in. broad; flesh at base of cup $\frac{1}{2}$ in. thick, near the margin 1 line thick. The sporidia are pale brown, and homogeneous within. Karsten found the sporidia in his specimens elliptic or fuso-elliptic, and 1-3 guttulate, neither of which characters were present in my specimens. Still, I have no doubt they are correctly referable to this species.

I am indebted for this handsome plant to the kindness of my friend, the Rev. G. H. Sawyer.

Near Guildford, Surrey! December, 1888.

***Mollisia atrata*, β . *Ebuli* (Fr.).**

Erumpent, gregarious, minute, sessile, at first globose, urceolate, at length expanded, concave, cinereous-black, margin thin, paler; hymenium when moist cinereous, when dry black; asci cylindraceo-clavate, broad at the base; sporidia 8, sub-clavate or sub-cylindrical, simple, $8, 10 \times 2-2, 5 \mu$; paraphyses filiform, slender, sparse.

Peziza atrata, β *Ebuli*, Fr. Sys. Myc. ii., p. 148; *Pyrenopeziza atrata*, β *Ebuli*, Fckl. Symb. p. 294.

Exs. Fckl. F. Rh. 1869.

On dead stems of *Sambucus ebulus*. July.

The cups are $200-500 \mu$ broad ($.2-.5$ mm.), and at first covered by the epidermis, which at length is ruptured by them. The asci are $40-50 \mu$ long, $7-8 \mu$ broad. The pseudo-parenchyma of the cup passes near the margin into a nearly colourless fibroso-cellular tissue, as in all this group.

Middlehope, Shropshire!

Mollisia vulgaris (Fr.).

Sessile, crowded, sub-caespitose, concave, membranaceous; white, yellowish-white, or pallid, glabrous; asci clavate; sporidia 8, cylindraceo-oblong, sometimes curved, $5-7 \times 1$, 5μ ; paraphyses slender.

Peziza vulgaris, Fries (in part), Sys. Myc., ii. p. 146; Karsten *Pez.* et Ascob. p. 39; Nyl. *Pez.* Fenn. p. 59; *Helotium albellum* (with) Karst. Myco. Fenn. 116; Rev. Asco. Acta Sc. F. F. Fenn. 11, n. 6; *Pezizella Avellanæ* (Lasch.), Fekl. Symb. Myco. 299; *Mollisia vulgaris*, Gillet Champ. p. 119.

Exs. *Peziza vulgaris*, Desm. Crypt. Fr. ed. i., 1065; ed. ii., 465.

Peziza avellanæ, Lasch., Rabh. Fung. Eur. 28; Fekl. F. Rh. 2079; *Helotium albellum*, Rehm's Asco., 63.

On dead branches of *Corylus Avellana*.

The cups are $\frac{1}{4}$ to $\frac{1}{2}$ a line broad, usually caespitose, rarely sub-stipitate, bursting through the bark in little tufts; very thin and membranaceous; margin bent upwards, even. The colour is whitish, the surface smooth. The tissue of the cup is composed of connate slender filaments. I have not been able to detect sporidia in the British specimens. The dimensions given above are from Dr. Nylander.

Shere. Dr. E. Capron! Carlisle! Dr. Carlyle.

Lachnea mirabilis (Bor.).

Growing singly, or several from the same base. Cup fleshy, explanato infundibuliform, rather fragile, externally whitish-tomentose, as is the rooting stem, which is enlarged upwards; margin elegantly crenato-incised, apices of the crenatures rounded, reflexed, somewhat revolute; disc umbilicate, beautifully bright crimson; asci cylindrical; sporidia elliptic $3-5$ guttulate, $33-35 \times 13-17 \mu$; paraphyses linear, septate, coloured with scarlet granules.

Peziza mirabilis, Borszczow, in Fungi Ingrici p. 61, t. iv. and v. Cooke Mycogr. fig. 98.

In shady woods, amongst pine leaves. May.

The height of the British specimens of this beautiful species is about $1\frac{1}{4}$ inches, and the stem is clothed with slender white hairs.

Growing in clusters of two to six among grass on the banks of the Dee near Ballater, N.B.! April. Professor James W. H. Trail.

Lachnea confusa (Cooke).

Gregarious, sessile, subspherical, at length hemispherico-depressed, or convex, externally brown, clothed with short, fasciculate, brown, septate hairs; hymenium the same colour; asci cylindraceo-clavate; sporidia 4-8, globose, uniguttulate, smooth, 13μ ; paraphyses filiform, slightly enlarged at the summit, filled with red granules.

Peziza confusa, Cooke in Bull. Buff. Ac. Sci., 1875, 291; Myco. Fig. 124. *Peziza brunnea*, Nyl. Obs. p. 21; Karst. Myc. Fenn. p. 75; Grevillea iii., fig. 98a.

Exs. Karst. Fung. Fenn. 528.

On burnt soil. October.

Cups 2-6 mm. broad, partly immersed in the soil, having numerous brown, septate, entangled hairs at the base, the upper exposed surface and the margin clothed with short, stout, brown, fasciculate hairs, from 30 to 70 μ long, and 3-7 μ thick, tapering towards the summit. The cells of the pseudo-parenchyma are about 10 to 15 in diameter, but vary above this size in some individuals. It is very near *Peziza schizospora*, the chief difference being the hairy surface of the cup.

I am indebted to Mr. W. Stewart, of Glasgow, for specimens of this interesting addition to our flora.

Epping Forest. Mr. W. Stewart.

***Lachnella virginea* (Batsch).**

β . selecta, Karst.

Differs from the type in the larger cups ($\frac{1}{2}$ a line), the somewhat thicker, longer ($\frac{1}{2}$ line to $1\frac{1}{2}$ lines), and more flexuous, stem; sporidia 4-11 \times 1-2 μ , paraphyses 4 μ thick.

Peziza selecta, Karst. Monogr. Pez. p. 192; *Lachnum selectum*, Karst. Myco. Fenn. p. 170.

On back and cones of *Pinus* and *Abies*. July to October.

Hampton-in-Arden! Mr. W. B. Grove. 1884.

***Lachnella grisella* (Rehm).**

Cups scattered shortly stipitate, turbinate, greyish, inclining to brown, clothed with pale brownish, or sub-hyaline, flexuous, simple hairs; tissue prosenchymatous; asci clavate, sub-acute at the apex, sometimes curved; sporidia 8, oblong-clavate, straight, or a little bent, biseriate, 7-9 \times 2-2, 5 μ ; paraphyses filiform, slender, hyaline.

Helotium grisellum, Rehm., Hedwigia, 1885.

Exs. Rehm's Asco. No. 766.

On dead fronds of *Pteris aquilina*. August.

Dr. Rehm justly remarks that this is a very difficult species to detect, nestling on the underside of the leaf amongst the hairs. The cups are about 400 μ broad and 300 μ high, substipitate or sessile, margin fringed with simple, colourless hairs 25 μ long 2 μ broad; the asci are 35 \times 5 μ . This is near *Lachnella aspidiicola* (B. & Br.), but has a shorter stipes, is a darker colour, and has larger sporidia.

The Isle of Orkney! Professor J. W. H. Trail. 1888.

***Lachnella callimorpha* (Karst).**

Gregarious, sessile, or shortly stipitate, tomentose; cups somewhat plane, when dry sphaerical, or hemisphaerical, contracted; hymenium yellow, or orange yellow; asci cylindrical-subclavate; sporidia 8, biseriate, linear fusiform, with 6-8 guttulæ, or spuriously pluriseptate, straight, 17-20 \times 1, 5-2 μ ; paraphyses acerose.

Lachnea callimorpha, Karst. Symb. p. 250; *Lachnum callimorpha*, Karst. Myco. Fenn. p. 173.

Exs. Karst. Fung. Fenn. 835.

On leaves of *Eriophorum angustifolium*. April.

Cups 300-500 μ broad. The hairs of the cup are colourless, straight, 40-50 μ long, and about 4 μ broad, obtuse, simple, and granular within.

Near Aberdeen! April 28, 1887. Professor Jas. W. H. Trail. No. 26.

Lachnella puberula, Lasch.

Minute, scattered, or gregarious, sessile, plane, or slightly concave, minutely pubescent, white, asci clavate; sporidia 8, oblongo-elliptic, or sub-fusiform, hyaline, $7\cdot10 \times 3\cdot4 \mu$; paraphyses slenderly filiform, sparse.

Peziza puberula, Lasch in Klotz Herb. Myco.

Pseudohelotium puberulum, Fekl. Symb. p. 298.

Exs. Klotz. Herb. Myc. No. 1529; *Helotium puberulum*, Fekl. F. Rh. 1150; Cooke Fung. Brit. ed. i., 574.

On fallen oak leaves. Autumn and winter.

Cups 300-400 μ broad; the hairs are slender, simple, short, hyaline, deciduous with age, 3-4 μ long, 2 μ broad. Nearly allied to *Lachnella fugiens*, but differing in the larger asci and sporidia.

Handsworth, near Birmingham! Mr. W. B. Grove, King's Norton! W. B. Grove.

Patellaria sphærospora, B. & C.

Scattered or crowded, applanate, margined, black, rather thin; asci cylindraceo-clavate; sporidia 8, sub-sphærical, elliptic, or sub-pyriform, brown, uni-guttulate, $7\cdot9 \mu$ or $10 \times 6 \mu$; paraphyses filamentous.

Patellaria sphærospora, B. & C. Cooke Disco. U.S. p. 26 (without description). Kew Herbarium No. 4460; Herb. Berk.; Sacc. Sylloge p. 790.

On dead wood.

Cups $\frac{1}{2}$ to 1 line broad: the variable form of the sporidia is remarkable.

This species of Berkeley and Curtis, found by the latter in Lower Carolina, U.S., original specimens of which exist in the Kew Herbarium, has occurred in the New Forest, Hampshire, and was sent me in March last by Miss Beatrice Taylor, Old House, Ringwood.

Schmitzomía Luzulæ (Lib.).

var. **Junci**, Karst.

Scattered, erumpent, then more or less protuberant, orbicular, urceolate, at first closed, then open; whitish, margin nearly entire, powdery-white; hymenium rosy, or pale orange colour; asci cylindrical; sporidia 8, filiform, adherent, multiseptate, $120\cdot130 \times 1\cdot1, 5 \mu$; paraphyses abundant, slenderly filiform.

Schmitzomía Luzulæ, var. *Junci*, Karst. Myco. Fenn. p. 238; *Stictis Luzulæ*, var. *Junci*, Karst. Revisio Mon. p. 166. Sacc. Syll. p. 692.

Exs. Karsten Fung. Fenn. No. 931.

On culms of *Juncus conglomeratus*. Autumn.

Orkney (?)! Professor James W. H. Trail.

Phacidium terrestre, Niessl.

Gregarious; receptacle turbinate or fig-shaped; excipulum between leathery and membranaceous, chestnut-brown, at first closed, at length opening with a lacinate margin; hymenium undulated, sulphur yellow; asci clavate, attenuated into a stem, broadly rounded at the summit; sporidia 8, uniseriate, oblong, unequal, simple, continuous, or sometimes divided by one or two guttulæ, hyaline, $11-13 \times 4-5 \mu$; paraphyses the length of asci, bifurcate at the apices.

Podophacidium terrestre, Niessl, Forhandl. Natur. Band. x. (1871), p. 213, t. v., f. 50.

On damp ground, amongst decayed leaves, etc.

Receptacle $1-1\frac{1}{2}$ lines broad, and $\frac{1}{2}$ to 1 line high; the asci $124-136 \times 8-9 \mu$. The sporidia are very rarely guttulate, and occasionally a sporidium is seen similar to the left hand figure of Niessl, in which there appears near the poles a contraction of the protoplasm, as though it were constricted. The paraphyses are slenderly filiform, often branched near the summit, where they are slightly thickened and curved downwards. There appears no necessity for creating a new genus for this.

Near Carlisle! Dr. Carlyle.

SOME EXOTIC FUNGI.

By M. C. COOKE.

Sphærella (Læstadia) palustris, Fr. in Duby Bot. Gall. ii., 710.

Hypophylla, sparsa. Peritheciis innatis, epidermide tectis, punctiformibus, nigris, nitidis, convexis, centro prominulo. Ascis cylindraceutis sporidiis suballantoideis, hyalinis, $10 \times 2 \mu$. Desm. Exs. No. 365.

On leaves of *Caltha palustris*. France.

Lizonia Sphagni, Cooke.

Perithecia scattered, subglobose, black, rather prominent, with a mamillate ostiolum, seated on the decayed leaves, and soon becoming subsuperficial. Asci clavate, sporidia cylindrical, slightly curved at one or both ends, uniseptate (then probably triseptate), hyaline, colourless, $40-50 \times 8 \mu$.

On dead *Sphagnum*. Maine, U.S.

1695* Valsa (eutypella) clavulata, Cooke.

Stromate valseo, e basi orbiculari, conico, obtuso, cortice innato, peritheciis 12-20 congestis; ostioliis elongatis, clavulatis, 4-5 sulcato-rugosis, exsertis, atris, opacis. Asci clavatis ($30 \times 10 \mu$),

octosporis. Sporidiis allantoideis, minutissimis, $3-4 \times 1 \mu$ vel minoribus, hyalinis.

In cortice *Ailanthi*. Staten Island (Mrs. Britton).

Pustules much more numerous than in *Valsa glandulosa* and sporidia smaller. Moreover, the elongated beaks are distinctly sulcate. It differs entirely in habit from *Eutypella ventriosa*, C. & E., and *Eutypella ailanthi*, Sacc., as well as in the very minute sporidia. Superficially it resembles *Valsa ceratophora*, Tul.

Discella palmicola, Cke. & Mass.

Peritheciis spuriis, supra obsoletis, dein patellatis, erumpentibus, atris, initio epidermide tectis, dein lacerato-fissuratis, conidiis ellipticis, uniseptatis, nec constrictis, purpureo-fuscis, $24-30 \times 9-12 \mu$.

On palm petioles. Madagascar.

Analogous to *Diplodia*, but with an incomplete or pezizæform receptacle.

ON CAMPBELLIA, GEN. NOV.

BY M. C. COOKE.

Two species of large stipitate Fungi have been communicated from Africa and Australia, which it hardly seems possible to include in any known genus of Hymenomycetes. The hymenium and spores resemble *Merulius* rather than *Laschia*. The habit is that of *Boletus*, the substance gelatinous, becoming horny, and all the features suggesting a link between *Boletus* and *Laschia*. From *Merulius* it differs in the deeper pores, stipitate form, and fleshy pileus. From *Laschia* in its more fleshy character, more decided pores, with thin membranaceous dentate dissepiments, more or less lacunose interior (at least when dry) and terrestrial growth. From *Boletinus* in its tremellose, almost gelatinous substance.

GENUS **CAMPBELLIA**, Cke. & Mass.

Fleshy, soft, tremellose, horny when dry, pileate and stipitate; hymenium inferior. Flesh more or less lacunose (especially when dry), spongy. Pores large, angular, usually toothed or serrate at the edge, rather deep, with thin flaccid dissepiments. Trama descending. Spores elliptical, brown.

Name from Miss F. Campbell (Mrs. Martin), an enterprising Australian mycologist, who communicated one of the species.

1. **Campbellia infundibuliformis**, Cke. & Mass. = *Merulius infundibuliformis*, C. & M. Grev. XVI., p. 73. Sacc. Syll. No. 6523.

On the ground (?). Yarra, Australia.

2. **Campbellia africana**, Cke. & Mass.

Expanded, convex, then depressed in the centre (4in. diam.), dark coloured, becoming purplish-black and horny when dry. Stem short, thick ($2 \times 1-2$ in.), attenuated downwards, solid, or

lacunose when dry. Pores broad, shallow, irregular, toothed at the edge, dessepiments thin, flaccid; spores elliptical ($7.8 \times 4 \mu$), pale brown.

On the ground. Botanic Garden, D'Urban (*Wood*, 826, 4107).

MEMORABILIA.

FLORA OF WARWICKSHIRE.—Mr. J. E. Bagnall's "Flora of Warwickshire" is now announced at the price of 12s. 6d. to subscribers. Names to be forwarded to J. E. Bagnall, 84, Witton Road, Aston, Birmingham. Afterwards the price will be raised.

COOKE'S ILLUSTRATIONS OF FUNGI.—Parts 1 to 59 form six volumes; parts 62 to 72 constitute Vol. vii., for which titles and index are issued in part 73. Then Vol. viii. or supplement will contain parts 41, 60, 61, 73, 74, and 75, with Title and Indices. The whole work will thus be completed during the current year.

POLYPORUS PHLEBOPHORUS, *Berk.*, *Flora N. Zealand*.—Without doubt the *Polyporus niveicolor* of Colenso is the same species as the above, when compared with authentic specimens. The figure in the Flora of New Zealand is not by any means good, but the type specimens are in existence, from which the drawing was made.

BERKELEY LIBRARY.—The library of the late Rev. M. J. Berkeley has passed into the hands of Mr. John Wheldon, of 58, Great Queen Street, London, E.C., and will shortly be disposed of, Catalogue being already in course of preparation.

POLYPORUS (FRONDOSI) SPARASSOIDES (*Speg.*).—By some remarkable oversight the specimens No. 3352 in Balansa Plantas du Paraguay, called *Thelephora sparassoides*, *Speg.*, *Fung. Guar.* Pug. i., p. 36, are really a frondose *Polyporus*, with very shallow, sometimes nearly obsolete, pores, and small colourless spores, about $3 \times 2 \mu$.

GREVILLEA NOTICE.—Unfortunately a large proportion of the stock of back numbers has been damaged by fire and water, so that it is advisable to complete sets at once, as certain numbers will become scarce.

PEZIZA AURIFLAVA, *Cooke*.—This very distinct species of the section *Humaria* has been found by Mr. E. Pearl, on clay soil at Helston in Cornwall. For the first time in Britain.

INTRODUCTION TO FRESH WATER ALGÆ.—One of the volumes of the International Scientific Library in progress on this subject, by M. C. Cooke, will be published shortly. It will include descriptions of all the British genera and species, with figures of all the genera, on 13 plates. The publishers are Messrs. Kegan Paul, Trench, Trübner and Co., and the price is five shillings.

BRITISH PYRENOAMYCETES.

BY G. MASSEE.

(Continued from p. 60.)

GEN. 8. **PLEOSPORA.** Perithecia naked, sporidia muriform.

* EU-PLEOSPORA. *Sporidia coloured.*

A. On *Dicotyledons.*

† *Sporidia 3 septate.*

P. bardanæ, *Nsl.*, *Sacc. Syll.* 3714.

On *Buddleia globosa*, Kew.

†† *Sporidia 5 septate.*

P. vulgaris, *Nsl.*, *Sacc. Syll.* 3720; *Hdbk.* 2692.

On herbs. Common.

P. verecunda, *Curr.*, *Sacc. Syll.* 3725; *Hdbk.* 2645.

On sticks. Batheaston.

P. meliloti, *Rab.*, *Sacc. Syll.* 3727.

On *Medicago sativa* and *Melilotus officinalis*. King's Lynn, Kew.

P. platyspora, *S.*, *Sacc. Syll.* 3729.

On *Euphorbia*. Darenth.

††† *Sporidia 7 septate.*

P. herbarum, *P.*, *Sacc. Syll.* 3750; *Hdbk.* 2692.

On herbs. Common.

P. pisi, *Sow.*, *Sacc. Syll.* 3731; *Hdbk.* 2692 a.

On leguminous plants. Common.

P. salsolæ, *Fckl.*, *Sacc. Syll.* 3732.

On *Salicornia*. Bungay.

P. dianthi, *Not.*, *Sacc. Syll.* 3738.

On *Dianthus deltoides* and *Arenaria peploides*. Yarmouth, Shrewsbury.

P. denotata, *C. & E.*, *Sacc. Syll. n.* 3740.

On *Glaucium fulvum*. Kew.

P. rubicunda, *Nsl.*, *Sacc. Syll.* 3744.

On *Juncus*, putrid grass, and rotten wood. Lynn; Brandon.

B. On *Fruits.*

P. leguminum, *Wallr.*, *Sacc. Syll.* 3754; *Hdbk.* 2692 γ.

On leaves and fruit of leguminous plants. Common.

C. On *Monocotyledons.*

† *Sporidia 3 septate.*

P. culmorum, *Cke.*, *Sacc. Syll.* 3789.

On culms of grass. Irstead; Hasbro'.

P. typhicola, Cke., *Sacc. Syll.* 3794.

On *Typha angustifolia*. N. Wootton.

†† *Sporidia* 5 septate.

P. infectoria, Fckl., *Sacc. Syll.* 3798.

On various grasses. King's Lynn.

P. spargani, Cke.

On *Sparganum*. N. Wootton.

P. scirpicola, D. C., *Sacc. Syll.* 3799 ; *Hdbk.* 2650.

On *Scirpus*, *Typha*, and *Carex*, sp. Common.

P. junciginea, Cke.

On culms of species of *Juncus*. N. Wootton.

CRYPTOGAMIC LITERATURE.

GILLET, C. C. Champignons de France, Hymenomycetes, fasc. 16.

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BARCLAY, A. On the Life History of a Uredine on *Rubia cordifolia* (*Puccinia Collettiana*.)

BARCLAY, A. On the Life History of a Himalayan Gymnosporangium (*G. Cunninghamianum*.)

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ARDISSONE, Fr. La divisioni primariae del regno vegetale.

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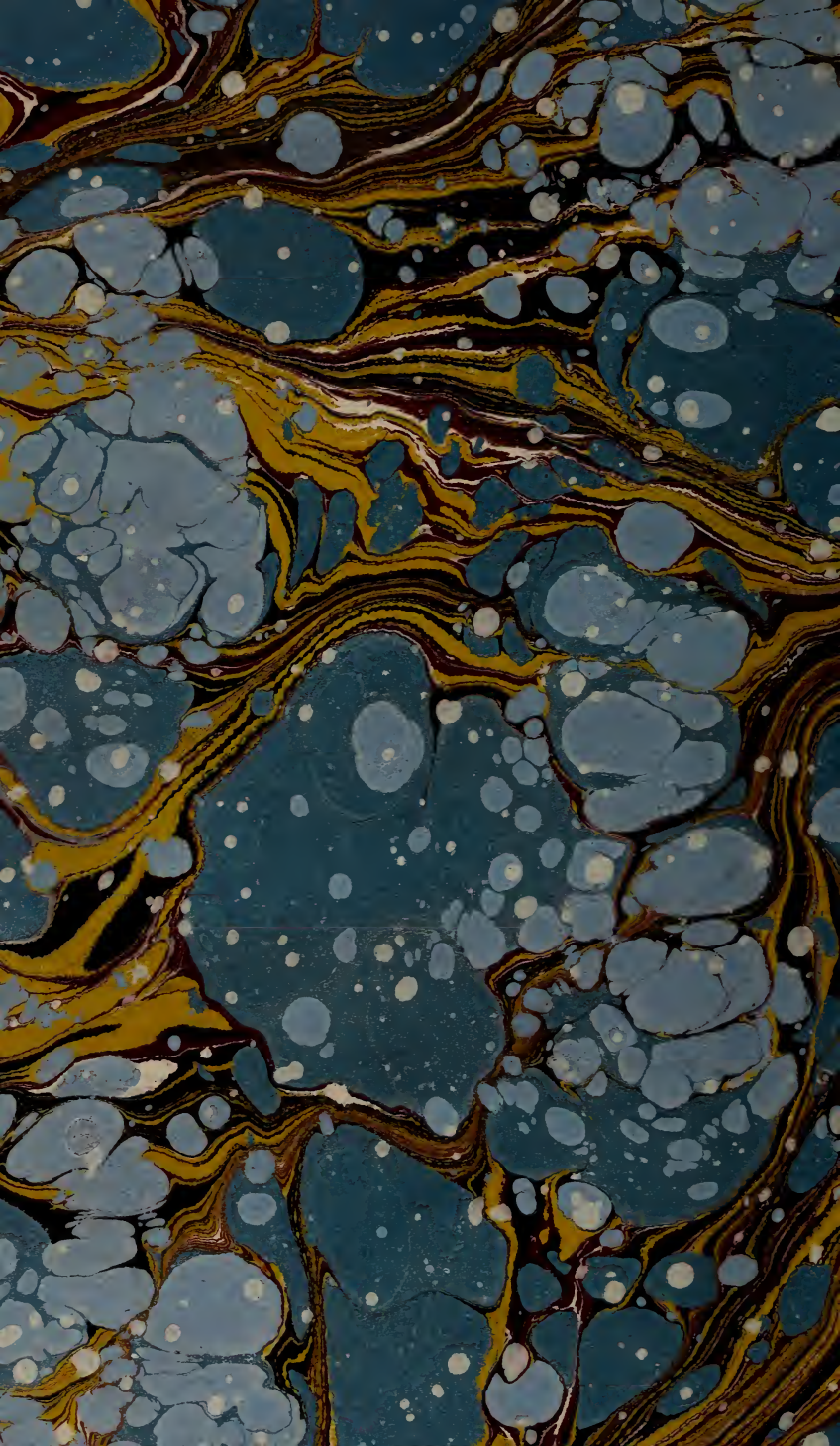
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